SERVICE MANUAL

AE-6B CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-29LS60B	RM-932	FR	SCC-Q83A-A	**KV-29LS60K**	RM-932	OIRT	SCC-Q82B-A
KV-29LS60E	RM-932	ESP	SCC-Q81A-A				

FD Trinitron

KV-29LS60

RM-932

TRINITRON ® COLOR TV

SONY®

TABLE OF CONTENTS

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE'LANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION !!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENTION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÈ LORS DE TOUT DÈPANNAGE LE CHÁSSIS DE CE RÈCEPTEUR EST DIRECTMENT RACCORDÈ Á L'ALIMENTATION SECTEUR.

### ATTENTION AUX COMPOSANTS RELATIFS Á LA SECURITÈ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÈMAS DE PRINCIPE, LES VUES EXPLOSÈES ET LES LISTES DE PIECES SONT D'UNE IMPOR-TANCE CRITIQUE POUR LA SÈCURITÈ DU FONCTIONNEMENT, NE LES REMPLACER QUE PAR DES COMPSANTS SONY DONT LE NUMÈRO DE PIÈCE EST INDIQUÈ DANS LE PRÈSENT MANUEL OU DANS DES SUPPLÈMENTS PUBLIÈS PAR SONY.

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
B	B/G/H, D/K, I, L	GERMAN/NICAM Stereo	VHF : E2-E12, F2-F10 UHF : E21-E69, F21-F69, B21-B69 CABLE TV : S01-S03, S1-S20, B-Q HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
E	B/G/H	GERMAN/NICAM Stereo	VHF : E2-E12 UHF : E21-E69 CABLE TV : S01-S03, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
K	B/G/H, D/K	GERMAN/NICAM Stereo	VHF : E2-E12, R01-R12 UHF : E21-E69, R21-R69 CABLE TV : S01-S03, S1-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Picture Tube	FD Trinitron Approx 72 cm (29 inches) (Approx 68 cm picture measured diagonally) 104 degree deflection	**Sound output**	
		Right and Left speaker	2x20W (Music Power) 2x10W (RMS)
		Sub Woofer	1x30W (Music Power) 1x15W (RMS)
Input/Output Terminals [REAR]		**General Specifications**	
1: 21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.	Power Requirements	220 - 240V
2: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals. (selectable)	Power Consumption	130W
		Dimensions	Approx 771x592x553mm
		Weight	Approx 49kg
Phono Jacks	Output Connectors variable for Audio Signals	Supplied Accessories	RM-932 Remote Commander (1) IEC designated R6 battery (2)
Input/Output Terminals [SIDE]		Other Features	100 Hz picture, TV system Autodetection, Teletext, Smartlink, BBE, Virtual Dolby
Headphone jack	stereo mini jack	**Remote Control System : Infrared Control**	
Audio inputs	phono jacks	Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Video inputs	phono jacks		
S Video input	4 pin DIN		
Design and specifications are subject to change without notice.			

Model Name Item	KV-29LS60B	KV-29LS60E	KV-29LS60K
Pal Comb	OFF	OFF	OFF
PIP	OFF	OFF	OFF
RGB Priority	ON	ON	ON
Woofer Box	ON	ON	ON
Scart 1	ON	ON	ON
Scart 2	ON	ON	ON
Front in (3)	ON	ON	ON
Scart 4	OFF	OFF	OFF
Projector	OFF	OFF	OFF
Norm B/G	ON	ON	ON
Norm I	ON	OFF	OFF
Norm D/K	ON	ON	ON
Norm AUS	OFF	OFF	OFF
Norm L	ON	OFF	OFF
Norm SAT	OFF	OFF	OFF
Norm M	OFF	OFF	OFF
Teletext	ON	ON	ON
Nicam Stereo	ON	ON	ON

21 pin connector
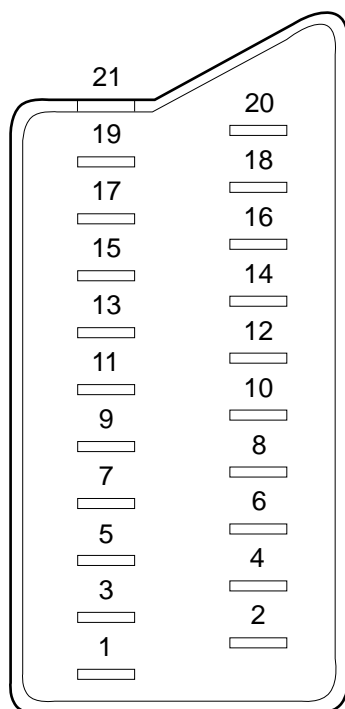
Pin No	1	2	4	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedence : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedence : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedence : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedence : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	–	–	Red input	0.7 +/- 3dB, 75 ohms, positive
15	–	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedence : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync. 0.3V (-3+10dB)
20	○	–	–	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	–	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected   ● Not Connected (open)   * at 20Hz - 20kHz

Rear Connection Panel

Side Connection Panel

S-Video socket

| S Video socket pin configuration		
Pin No	Signal	Signal Level
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V+/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V+/- 3dB 75ohm, positive Sync.

AE-6B SELF DIAGNOSTIC SOFTWARE

The identification of errors within the AE-6B chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1, non fatal errors are reported using this method.

Each time the software detects an error it is stored within the NVM. See Table 2.

Table 1

Error Message	LED Code
No error	00
Reserved	01
OCP (Over Current Protection)	02
Over Voltage Protection	03
No Vertical Sync	04
IKR Error at power on	05
IIC bus clock and/or data lines low at power on	06
NVM no IIC bus acknowledge at power on	07
Horizontal Protection	08
Tuner no acknowledge at power on	09
Sound Processor Error	10
Reserved	11
Scanrate Error	12
DAC Error	13
Backend Error	14
Dynamic Convergence Error	15
PIP Error	16

Flash Timing Example : e.g. error number 3

StBy LED
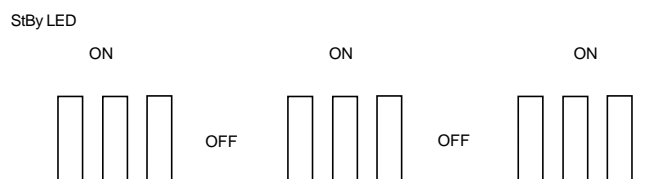
How to enter into Table 2

1. Turn on the main power switch of the TV set.
2. Program Remote Commander for Operation in Service Mode. [See Page 20].
3. Press 'VIDEO' 'VIDEO' > 'MENU' on the Remote Commander.
4. Using the Remote Commander, Scroll to the 'Error Menu' item using the down arrow key, then press the right arrow key.
5. The following table will be displayed indicating the error count.

Table 2

```
ERROR MENU

E02          OCP        (0, 255)    0
E03          OVP        (0, 255)    0
E04          VSYNC      (0, 255)    0
E05          IKR        (0, 255)    0
E06          IIC        (0, 255)    0
E07          NVM        (0, 255)    0
E08          HPROT      (0, 255)    0
E09          TUNER      (0, 255)    0
E10          SOUNDP     (0, 255)    0
E11          -          (0, 255)    0
E12          SCANRATE   (0, 255)    0
E13          DAC        (0, 255)    0
E14          BACKEND    (0, 255)    0
E15          DYN CON    (0, 255)    0
E16          PIP        (0, 255)    0

WORKING TIME
HOURS                              14
MINUTES                             7
```

Note: To clear the error count data press '80' on the Remote commander.

The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.

Switching On the TV and Automatically Tuning

ⓘ The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen, 2) choose the country in which you wish to operate the TV, 3) adjust the picture slant 4) search and store all available channels (TV Broadcast) and 5) change the order in which the channels (TV Broadcast) appear on the screen.

However, if you need to change any of these settings at a later date, you can do that by selecting the appropriate option in the ⊞ (Set Up menu) or by pressing the Auto Start Up Button ▶❚ on the TV set.

1 Connect the TV plug to the mains socket (220-240V AC, 50Hz).

Press the ⏻ on/off button on the TV set to turn on the TV.

The first time you press this button, a **Language** menu displays automatically on the TV screen.
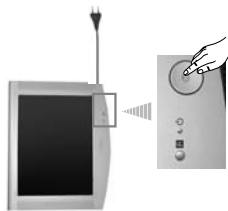
2 Press the ➡ or ⬅ button on the remote control to select the language, then press the **OK** button to confirm your selection. From now on all the menus will appear in the selected language.
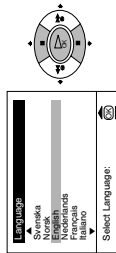
3 The **Country** menu appears automatically on the TV screen. Press the ➡ or ⬅ button to select the country in which you will operate the TV set, then press the **OK** button to confirm your selection.
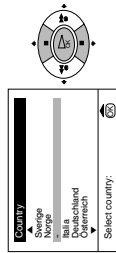
ⓘ • If the country in which you want to use the TV set does not appear in the list, select *"—"* instead of a country.
• In order to avoid wrong teletext characters for Cyrillic languages we recommend to select Russia country in the case that your own country does not appear in the list.

4 Because of the earth's magnetism, the picture might slant. The **Picture Rotation** menu allows you to correct the picture slants if it is necessary.
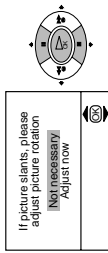
a) If it is not necessary, press ➡ or ⬅ to select **Not necessary** and press **OK**.

b) If it is necessary, press ➡ or ⬅ to select **Adjust now**, then press **OK** and correct any slant of the picture between −5 and +5 by pressing ➡ or ⬅. Finally press **OK** to store.

5 The Auto Tuning menu appears on the screen. Press the **OK** button to select **Yes**.
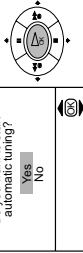
6 The TV starts to automatically search and store all available broadcast channels for you.
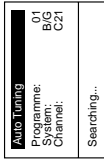
⚠ This procedure could take some minutes. Please be patient and do not press any buttons, otherwise the automatic tuning will not be completed.

⚠ If no channels were found during the auto tuning process then a new menu appears automatically on the screen asking you to connect the aerial. Please connect the aerial (see page 6) and press **OK**. The auto tuning process will start again.
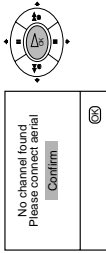
7 ⓘ After all available channels are captured and stored, the **Programme Sorting** menu appears automatically on the screen enabling you to change the order in which the channels appear on the screen.
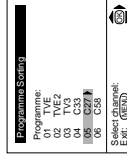
a) If you wish to keep the broadcast channels in the tuned order, go to step 8.

b) If you wish to store the channels in a different order:
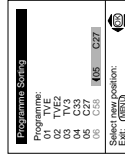
1 Press the ➡ or ⬅ button to select the programme number with the channel (TV Broadcast) you wish to rearrange, then press the ➡ button.

2 Press the ➡ or ⬅ button to select the new programme number position for your selected channel (TV Broadcast), then press ⬇ .

3 Repeat steps b)1 and b)2 if you wish to change the order of the other channels.

8 Press the **MENU** button to remove the menu from the screen.

☞ *Your TV is now ready for use*

GB

- 6 -

Introducing and Using the Menu System

ℹ️ Your TV uses an on-screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:

MENU

1 Press the MENU button to switch the first level menu on.

2 • To highlight the desired menu or option, press ➡ or ⬅.
• To enter to the selected menu or option, press ⬆.
• To return to the last menu or option, press ⬇.
• To alter settings of your selected option, press ➡ / ⬅ / ⬇ or ⬆.
• To confirm and store your selection, press OK.

3 Press the MENU button to remove the menu from the screen.

MENU

Menu Guide

Level 1	Level 2	Level 3 / Function
		PICTURE ADJUSTMENT
		The "Picture Adjustment" menu allows you to alter the picture adjustments.

To do this: after selecting the item you want to alter press ⬆, then press repeatedly ➡ / ⬅ / ⬇ or ⬆ to adjust it and finally press OK to store the new adjustment.

This menu also allows you to customise the picture mode based on the programme you are watching:

➡ **Personal** (for individual settings).
➡ **Live** (for live broadcast programmes, DVD and Digital Set Top Box receivers).
➡ **Movie** (for films).

• **Brightness, Colour** and **Sharpness** can only be altered if "Personal" mode is selected.
• **Hue** is only available for NTSC colour signal (e.g; USA video tapes).
• Select **Reset** and press OK to reset the picture to the factory preset levels.

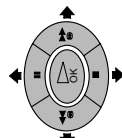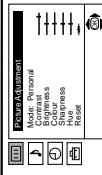| Level 1	Level 2	Level 3 / Function
		SOUND ADJUSTMENT
		The "Sound Adjustment" menu allows you to alter the sound adjustments.

To do this: after selecting the item you want to alter, press ⬆, then press repeatedly ➡ / ⬅ / ⬇ or ⬆ to adjust it and finally press OK to store the new adjustment.

Effect

➡ **Natural:** enhances clarity, detail and presence of sound by using "BBE High Definition Sound system"*.

➡ **Dynamic:** "BBE High Definition Sound system"* intensifies clarity and presence of sound for better intelligibility and musical realism.

➡ **Dolby**Virtual: simulates the sound effect of Dolby Prologic surround.

➡ **Off:** flat response.

Treble	⬇ Less	⬆ More
Bass	⬇ Less	⬆ More
Balance	⬇ Left	⬆ Right
Reset	OK Resets the sound to the factory preset levels.	

Dual Sound:
⬆ • For a stereo broadcast:
  ➡ **Mono.**
  ➡ **Stereo.**
• For a bilingual broadcast:
  ➡ **Mono** (for mono channel if available).
  ➡ **A** (for channel 1).
  ➡ **B** (for channel 2).

Auto Volume:
➡ **On:** volume level changes according to the broadcast signal.
➡ **Off:** volume level of the channels will stay the same, independent of the broadcast signal (e.g. in the case of advertisements).

• If you are listening to the TV through headphones, the "Effect" option will automatically be switched to Off.

• If you switch "Effect" to "Dolby Virtual", the "Auto Volume" option will automatically be switched to "Off" and vice versa.

ℹ️ * The "BBE High Definition Sound system" is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. Teh word "BBE" and BBE Symbol are trademarks of BBE Sound, Inc.

** This TV has been designed to create the "Dolby Surround" sound effect by simulating the sound of four speakers with two speakers, when the broadcast audio signal is Dolby Surround encoded. The sound effect can also be improved by connecting a suitable external amplifier (for details refer to "Connecting to external audio Equipment" on page 19).

ℹ️ ** Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol ▯▯ are trademarks of Dolby Laboratories.

GB

PROGRAMME SORTING

The "Programme Sorting" option in the "Set Up" menu allows you to change the order in which the channels (TV Broadcast) appear on the screen.

To do this: after selecting the option, press ↑, and then proceed in the same way as in step 7 b) of the section "Switching On the TV and Automatically Tuning".

PROGRAMME LABELS

The "Programme Labels" option in the "Set Up" menu allows you to name a channel using up to five characters (letters or numbers).

To do this:

1 After selecting the option, press ↑, then press → or ← to select the programme number with the channel you wish to name.

2 Press ↑. With the first element of the **Label** column highlighted, press → or ← to select a letter or number (select "-" for a blank), then press ↑ to confirm this character. Select the other four characters in the same way. Finally press **OK** to store.

AV PRESET

The "AV Preset" option in the "Set Up" menu allows you to designate a name to the external equipment you have connected to the sockets of this TV.

To do this:

1 After selecting the option, press ↑, then press → or ← to select the input source you wish to name (**AV1, AV2** and **AV3** are for the rear Scarts and **AV4** for side connectors). Then press ↑.

2 In the label column automatically appears a label:

a) If you want to use one of the 6 predefined label (**CABLE, GAME, CAM, DVD, VIDEO** or **SAT**), press → or ← to select the desired label and finally press **OK** to store.

b) If you want to set a different label, select **Edit** and press ↑. Then with the first element highlighted, press → or ← for a blank, select a letter, number or "-" for a blank, then press ↑ to confirm this character. Select the other four characters in the same way and finally press **OK** to store.

GB

SLEEP TIMER

The "Sleep Timer" option in the "Timer" menu allows you to select a time period for the TV to switch itself automatically into the standby mode.

To do this: after selecting the option press ↑, then press → or ← to set the time period delay (max. of 4 hours) and finally press **OK** to store.

• *While watching the TV, you can press the [+] button on the remote control to display the time remaining;*

• *One minute before the TV switches itself into standby mode, the time remaining is displayed on the TV screen automatically.*

LANGUAGE / COUNTRY

The "Language/Country" option in the "Set Up" menu allows you to select the language that the menus are displayed in. It also allows you to select the country in which you wish to operate the TV set.

To do this: after selecting the option, press ↑ and then proceed in the same way as in the steps 2 and 3 of the section "Switching On the TV and Automatically Tuning".

AUTO TUNING

The "Auto Tuning" option in the "Set Up" menu allows you to automatically search for and store all available TV channels.

To do this: after selecting the option, press ↑ and then proceed in the same way as in TV steps 5 and 6 of the section "Switching On the TV and Automatically Tuning".

Teletext

ⓘ Teletext is an information service transmitted by most TV stations. The index page of the teletext service (usually page 100) gives you information on how to use the service. To operate teletext, use the remote control buttons as indicated below.

⚠ Make sure to use a channel (TV Broadcast) with a strong signal, otherwise teletext errors may occur.

To Switch On Teletext :

After selecting the TV channel which carries the teletext service you wish to view, press ▤.

To Select a Teletext page:

Input 3 digits for the page number, using the numbered buttons.
- *If you have made a mistake, retype the correct page number.*
- *If the counter on the screen continues searching, it is because this page is not available. In that case, input another page number*

To access the next or preceding page:

Press PROG + (▣) or PROG - (▣).

To superimpose teletext on to the TV:

Whilst you are viewing teletext, press ▤ . Press it again to cancel teletext mode.

To freeze a teletext page:

Press ⬛/⬛ . Press it again to cancel the freeze.

To reveal concealed information (e.g: answer to a quiz):

Press ⊞/⑦ . Press it again to conceal the information.

To select a sub page:

A teletext page may consist of several sub pages. In this case the page number that appears on the upper left corner will become from yellow to green colour and one or more arrows will appear next to the page number. Press repeatedly ▼ or ▲ buttons on the remote control to watch the desired sub page.

To Switch Off Teletext:

Press ⬜ .

TELETEXT	
Index	
Programme	25
News	53
Sport	101
Weather	98

Fastext

ⓘ Fastext service lets you access pages with one button push.
While you are in Teletext mode and Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the colour button (red, green, yellow or blue) to access the corresponding page.

Remote Control Configuration for VCR/DVD

This remote control is default to operate basic functions of this Sony TV, Sony DVD and most of Sony VCR when batteries are initially installed. To control other VCR and DVD major brands and some Sony VCR models, please complete the following steps:

ⓘ • Before you start, look up the 3 digit code for your brand of DVD or VCR from the list below. On those brands that have more than one code, enter the first code number.
• Sony will endeavour to update the software according to market changes. Therefore, please refer to code table included with the remote control for latest code set.

1 Press the Media Selector button on the remote control repeatedly until the required VCR or DVD green light is lit.

⚠ If Media Selector is on TV position, code numbers will not be stored.

2 Before the green light goes out, press and hold the yellow button for approximately 6 seconds until the green light starts flashing.

3 Whilst the green light is flashing, enter all three digits of the code for your brand using the number buttons on the remote control.

ⓘ If your selected code is entered correctly, all three green lights will be lit momentarily.

4 Turn on your brand VCR or DVD and check that the main functions work.

⚠ • If your device is not working or some of the functions do not work please check you entered the correct code set or try the next code listed against the brand.
• Your brand codes may be lost if weak batteries are not replaced within a few minutes. To reset your brand DVD or VCR please repeat the above steps. A small label is added inside the battery door to allow you to record your brand codes.
• Not all brands are covered and not all models of every brand may be covered.
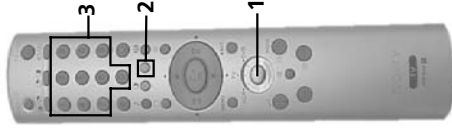
VCR Brand List

Brand	Code
SONY (VHS)	301, 302, 303, 308, 309
SONY (BETA)	303, 307, 310
SONY (DV)	304, 305, 306
AIWA	325, 331, 351
AKAI	326, 329, 330
DAEWOO	342, 343
GRUNDIG	358, 355, 360, 361, 320, 351
HITACHI	327, 333, 334
JVC	314, 315, 322, 344, 352, 353, 354, 348, 349
LG	332, 338
LOEWE	358, 355, 360, 361, 320, 351
MATSUI	356, 357
ORION	328
PANASONIC	321, 323
PHILIPS	311, 312, 313, 316, 317, 318, 358, 359
SAMSUNG	339, 340, 341, 345
SANYO	335, 336
SHARP	324
THOMSON	319, 350
TOSHIBA	337

DVD Brand List

Brand	Code
SONY	001
AIWA	021
DENON	018, 027, 020, 002
GRUNDIG	009, 028, 023, 024, 016, 003
HITACHI	025, 026, 015, 004
JVC	006, 017
KENWOOD	008
LG	015, 014
LOEWE	009, 028, 023, 024, 016, 003
MATSUI	013, 016
ONKYO	022
PANASONIC	018, 027, 020, 002
PHILIPS	009, 028, 023, 024, 016, 003
PIONEER	004
SAMSUNG	011, 014
SANYO	007
SHARP	019, 027
THOMSON	012
TOSHIBA	003
YAMAHA	018, 027, 020, 002

Specifications

TV system:
Depending on your country selection:
B/G/H, D/K

Colour system:
PAL, SECAM
NTSC 3.58, 4.43 (only Video In)

Channel Coverage:
VHF: E2-E12
UHF: E21-E69
CATV: S1-S20
HYPER: S21-S41
D/K: R1-R12, R21-R69

Picture Tube:
Flat Display FD Trinitron
29″ (approx. 73 cm. measured diagonally)

Rear Terminals
↔1/-◁1   21-pin scart connector
          (CENELEC standard)
          including audio/video
          input, RGB input, TV
          audio/video output.

↔2/-◁2   21-pin Scart connector
(SMARTLINK) (CENELEC standard)
          including audio / video
          input, S video input,
          selectable audio / video
          output and Smartlink
          interface.

↔   audio outputs (Left /
          Right) - phono jacks

Side Terminals
-◁3   S Video input – 4 pin DIN

-◁3   video input – phono jack
◑ 3   audio input – phono jacks
◖:   headphones jack

Sound Output:
2 x 20 W (music power)
2 x 10 W (RMS)

Woofer:
30 W (music power)
15 W (RMS)

Power Consumption:
130 W

Standby Power Consumption:
0.3 W

Dimensions (w x h x d) :
Approx. 771 x 592 x 553 mm.

Weight:
Approx. 49 Kg.

Accessories supplied:
1 Remote Control (RM-932)
2 Batteries (IEC designated)

Other features:
• 100 Hz picture
• Teletext, Fastext, TOPtext (250 page TEXT memory)
• Sleep Timer
• Smartlink (direct link between your TV set and a compatible VCR. For more information on Smartlink, please refer to the Instruction Manual of your VCR).
• TV system Autodetection.
• Dolby Virtual.
• BBE.

Design and specifications are subject to change without notice.

Recycled Paper ♲

GB

Troubleshooting

ⓘ Here are some simple solutions to the problems which may affect the picture and sound.

Problem	Solution
No picture (screen is dark) and no sound.	• Check the aerial connection. • Plug the TV in and press the ⏻ button on the front of the TV. • If the standby indicator ⏻ is on, press TV I/⏻ button on the remote control.
Poor or no picture (screen is dark), but good sound.	• Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to the factory settings.
No picture or no menu information from equipment connected to the Scart connector.	• Check that the optional equipment is on and press the ⊟ button repeatedly on the remote control until the correct input symbol is displayed on the screen.
Good picture, no sound.	• Press the ∠ +/– button on the remote control. • Check that "TV Speakers" is "On" on the "Detail Set Up" menu. • Check that headphones are not connected.
No colour on colour programmes.	• Using the menu system, select the "Picture Adjustment" menu and select "Reset" to return to factory settings.
Distorted picture when changing programmes or selecting teletext.	• Turn off any equipment connected to the Scart connector on the rear of the TV.
Wrong characters appear when viewing teletext.	• Using the menu system, enter to the "Language/Country" menu and select the country in which you operate the TV set. For Cyrillic languages, we recommend to select Russia country in the case that your own country does not appear in the fist.
Picture slanted	• Using the menu system, select the "Picture Rotation" option in the "Detail Set Up" menu to correct the picture slant.
Noisy picture when viewing a TV channel.	• Using the menu system, select the "Manual Programme Preset" menu and adjust Fine Tuning (AFT) to obtain better picture reception. • Using the menu system, select the "Noise Reduction" option in the "Detail Set Up" menu and select "Auto" to reduce the noise in the picture.
No unscrambling or unstable picture whilst viewing a scrambling channel with a decoder connected through the Scart connector ↔3/-◁3.	• Using the menu system, select the "Set Up" menu. Then enter to "Detail Set Up" option and set "AV2 Output" to "TV".
Remote control does not function.	• Check that the Media Selector on the remote control is set according to the device you are using (VCR, TV or DVD). • If the remote control does not operate the VCR or DVD even when the Media Selector has been set correctly, Enter the necessary code set as explained on "Remote Control Configuration for VCR/DVD" chapter of this instruction manual. • Replace the batteries.
The standby indicator ⏻ on the TV flashes.	• Contact your nearest Sony service centre.

⚠ If you continue to experience problems, have your TV serviced by qualified personnel. Never open the casing yourself.

2-1. Rear Cover Removal

Remove the rear cover fixing screws indicated. Take care when removing the rear cover not to damage the speaker cables [Disconnect the speaker connector] as speakers are fitted inside the rear cover.

2-2. Speaker Connector Disconnection
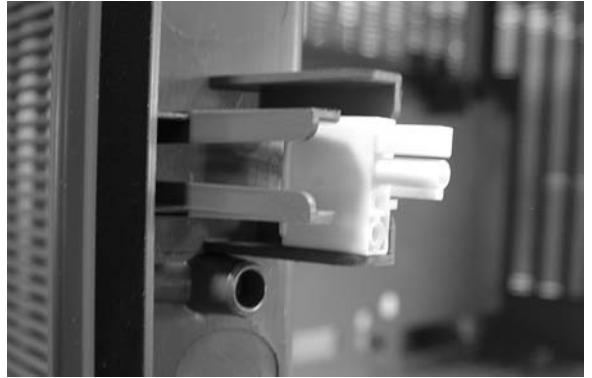
Before completely removing the rear cover disconnect the speaker connector which is located on the inside.

2-3. Chassis Removal and Refitting
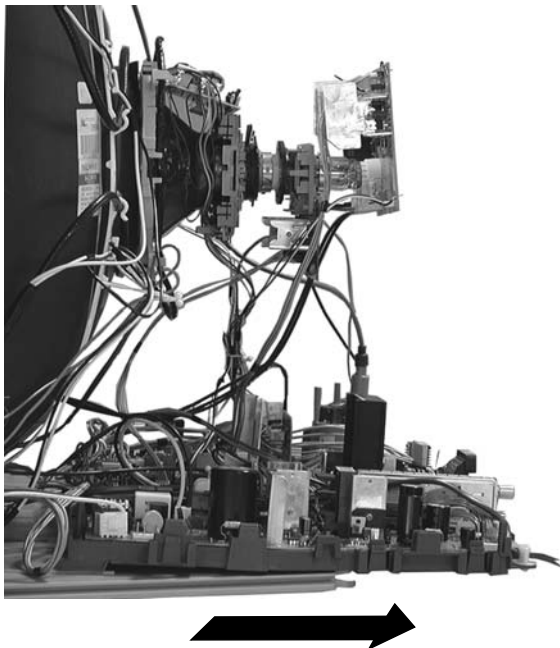
To remove lift the main bracket rear slightly and slide the chassis away from the beznet. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.
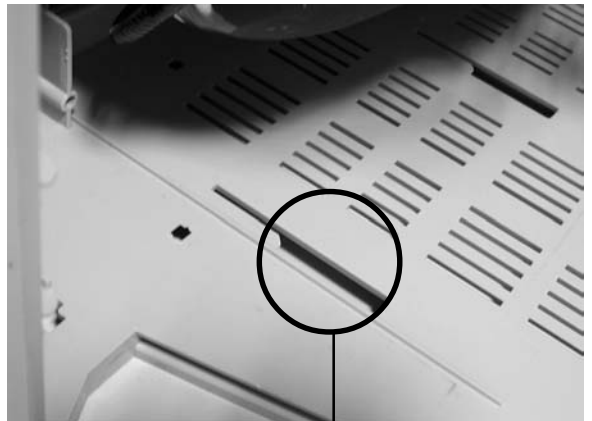
When refitting the chassis ensure that the main bracket is located in the beznet guide slots before sliding the chassis forwards. Refit the interconnecting leads in their respective purse locks.

2-4. Service Position

Position the chassis as indicated to access the solder side. To gain access to the underside of the boards follow the instructions on page 15. [Removal and Replacement of the main bracket bottom plates].

2-5. D and G Board Removal
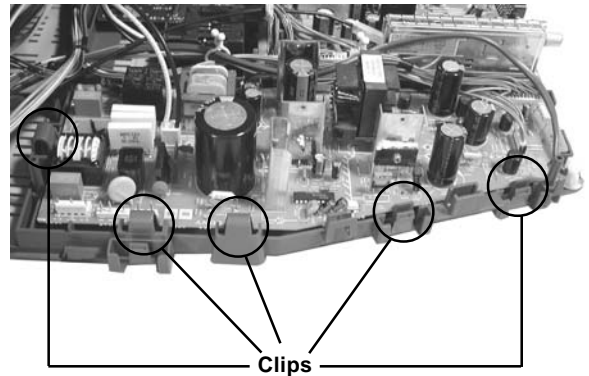
Clips

To remove the G Board release the clips circled and ease the board gently away from the support bracket. Removal of the D Board follows the same procedure.

2-6. Side Control Module Removal
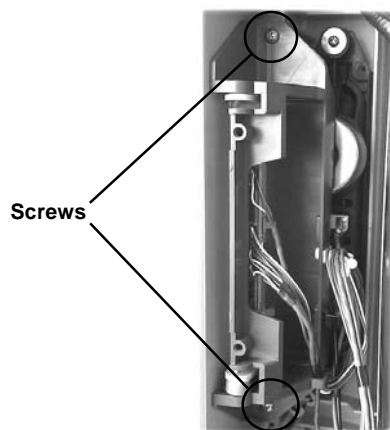
Screws

Remove the two screws fixing the user control module to the side of the set. The control module can then be removed by sliding it towards the rear of the set allowing access to the H2 Board.

2-7. H2 Board Removal
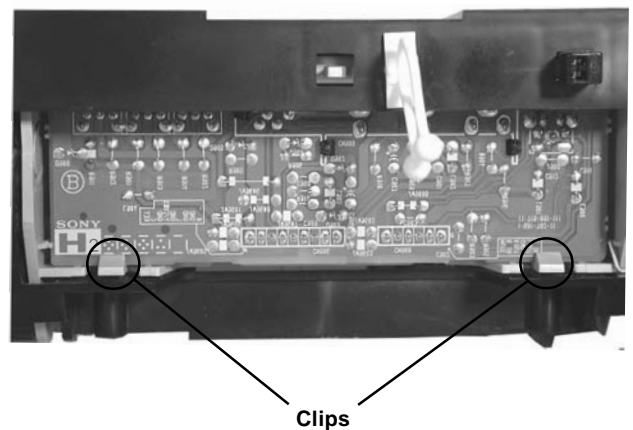
Clips

To remove the H2 Board release the two clips circled and ease the board gently away from the support bracket.

2-8. M Board Removal

To remove the M Board gently release the two clips with a screwdriver and remove the board from its socket vertically.

2-9. Service Connector for M Board

From M Board

To A Board
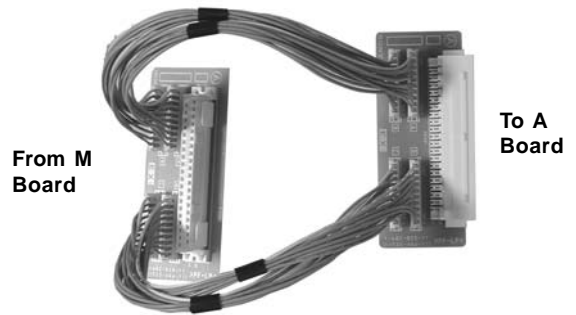
Extender Board Assembly A-1642-293-A

If the M Board needs to be removed for testing when the chassis is placed in its service position, it would be necessary to use an extender board and extension cable as indicated above.
The Extender board and extension cable are available as a service part by ordering the part number as indicated.

WARNING:
BEFORE REMOVING
THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT *before* attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.

Coated Earth
Ground Strap
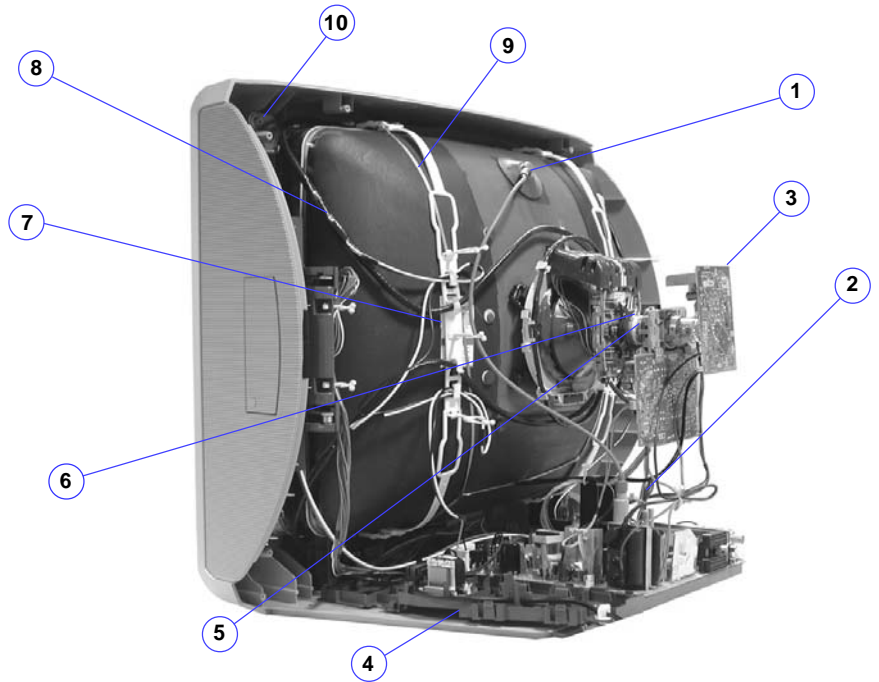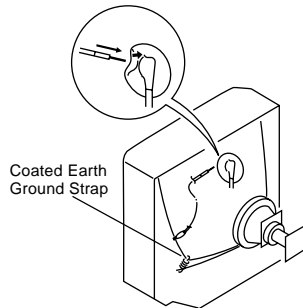
1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tentioners.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT.
    [Take care not to handle the CRT by the neck.]

Removal of the Anode-Cap

* REMOVING PROCEDURES.
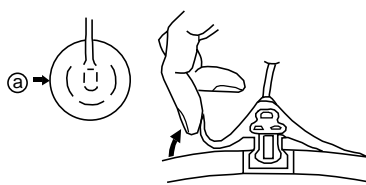
Anode button

① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ
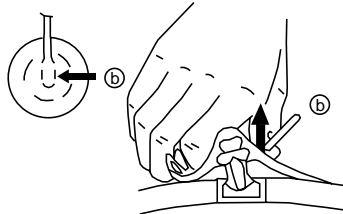
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ
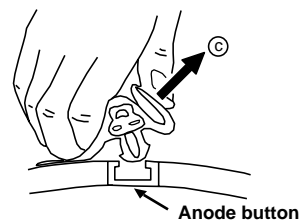
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ

How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
4. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.

REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

⚠️ **For safety reasons, on no account should the plates be removed and not refitted after servicing.**

(1) REMOVING THE PLATES

In the event of servicing being required to the solder side of the D Board printed wiring board, the bottom plates fitted to the main chassis bracket require to be removed.

This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

Note : There are 3 plates fitted to the main bracket and secured by 3 gates.
Only remove the necessary plate to gain access to the printed wiring board.

(2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.

Catch

Tab
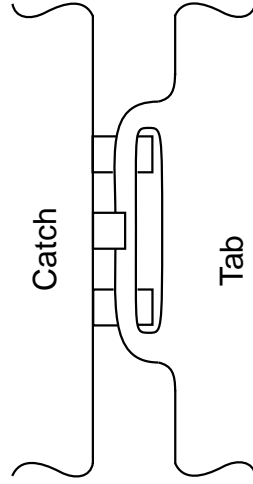
- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast .... normal

Brightness .... normal

Carry out the adjustments in the following order :
3-1.   Beam Landing.
3-2.   Convergence.
3-3.   Focus.
3-4.   White Balance.

Note : Test equipment required.
1.   Color bar/pattern generator.
2.   Degausser.
3.   Oscilloscope.
4.   Digital multimeter.

3-1. Beam Landing

Preparation :

1.   In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2.   Switch on the TV set's power and degauss with a degausser.

(1)   Adjustment of Correction Magnet for Y-Splitting Axis.

1.   Input a crosshatch signal from the pattern generator.
2.   Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3.   Position the neck assembly as indicated in Fig.3-2.
4.   Loosen the deflection yoke fixing screw.
5.   Move the deflection yoke as far forward as is possible.
6.   Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly. [See Fig 3-3]
7.   Return the deflection yoke to its original position and re-tighten its fixing screw.

Fig.3-1

Y-splitting axis correction magnet
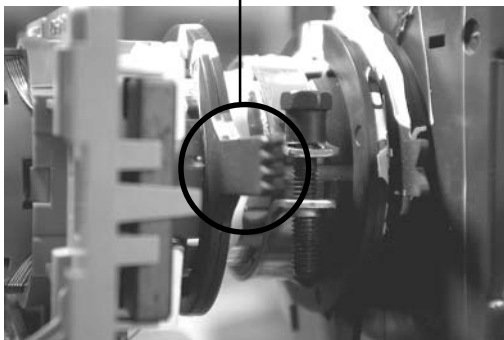
Caution :

High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

(2) Landing

Note : Before carrying out the following adjustments adjust the magnets as indicated below [See Fig.3-4].
1.   Input a crosshatch signal from the signal generator.
2.   Rough-adjust the focus and horizontal convergence.
3.   Switch from the crosshatch pattern to an all-red pattern.
4.   Move the deflection yoke backwards and adjust with the purity magnet so that the red is at the centre and it aligns symmetrically [See Fig.3-5].
5.   Move the deflection yoke forward to the point where the entire screen just becomes red [Mark its position].
6.   Move the deflection yoke further forward until the screen just changes colour at the edges. [Mark its position]
7.   Position the deflection yoke between the two marks indicated above.
8.   Input a crosshatch pattern from the pattern generator and rotate the deflection yoke so that the horizontal lines are parallel with the top and bottom of the screen.
9.   When the position of the deflection yoke has been determined, fasten it with its fixing screw.
10. Switch the pattern generator to green then blue and confirm the purity.
11. If the beam does not land correctly in all the corners of the screen, use disk magnets to correct it. [Confirm the corner landing for green and blue]

Fig.3-2

Neck assy

Align the edge of the neck assy with the edge of the G2 grid on the G3 side.

Fig.3-3

Fig.3-4

Purity magnets

Align both Purity magnets to the vertical position

Align pips on each magnet

Purity control magnets

GREEN
RED
BLUE

Fig.3-5

Disk magnets or rotatable disk magnets correct these areas (a-d)

Purity control corrects this area

a
b
c
d

Deflection yoke positioning corrects these areas

Disk Magnets
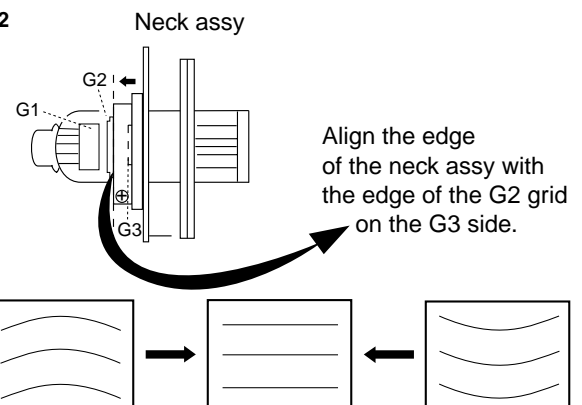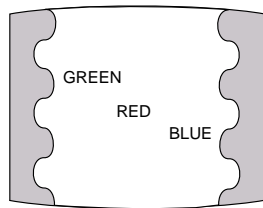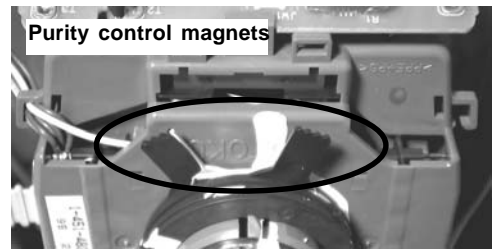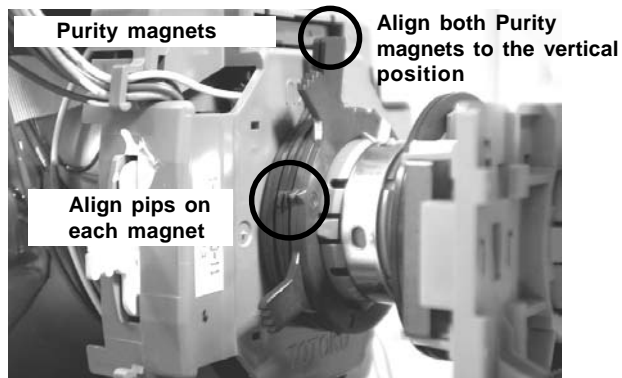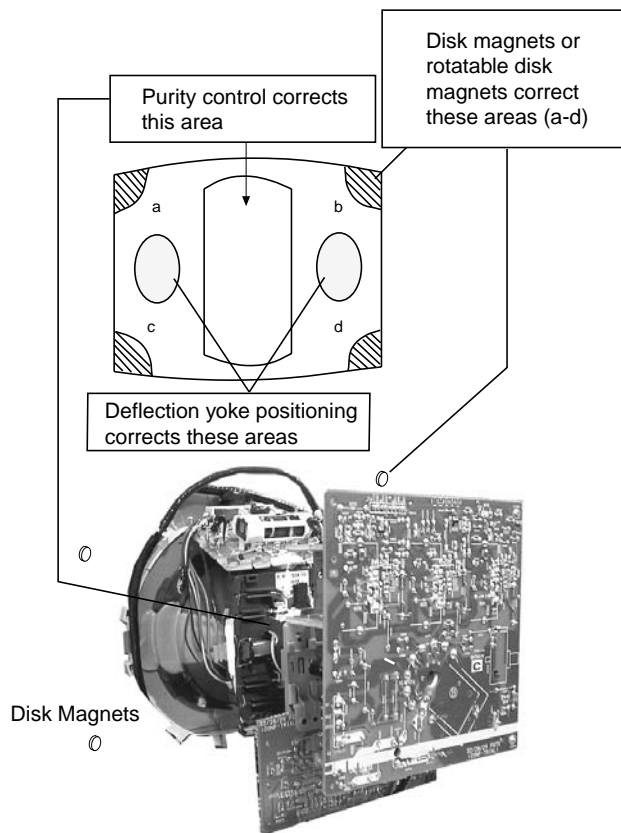
3-2. Convergence

(1) Screen centre convergence [Static convergence]

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

Center dot

R
G
B

R G B

H STAT convergence control

V.STAT Vertical Static Magnet

C Board

RV7375 (H STAT) H STAT Convergence (on mount side)
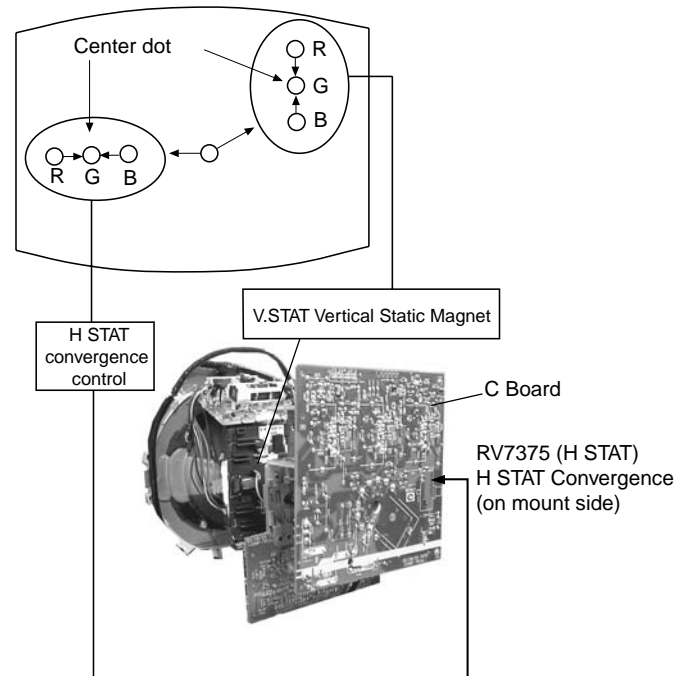
By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.

B
G
R

B
G
R
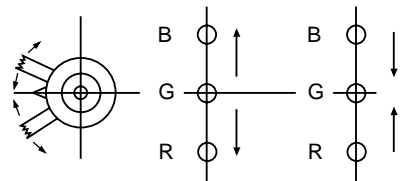
Note: Do not adjust the H.STAT by rotating the V.STAT magnets as this can affect the focus setting.

4. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.
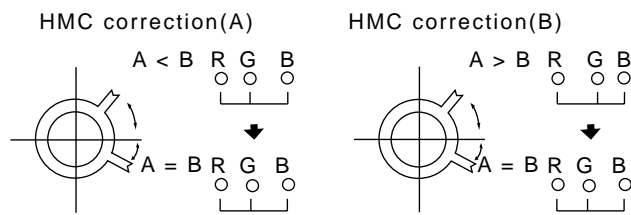
HMC correction(A)

A < B R G B

A = B R G B

HMC correction(B)

A > B R G B

A = B R G B

b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.

VMC correction(A)

C < D   C = D

$C \atop D$ R G B $C \atop D$ R G B

VMC correction(B)

C > D   C = D

R G B   R G B
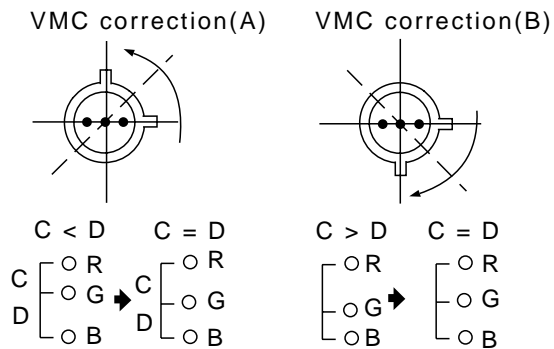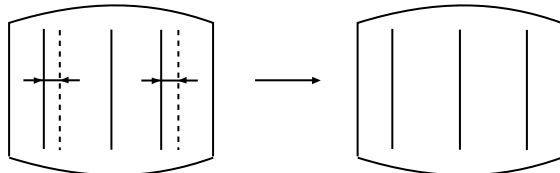
HAMP Adjustment

Adjust the HAMP using HAMPL and HAMPR registers in the Dynamic Convergence section of the service menu.

HTIL Adjustment

THL Correction assy
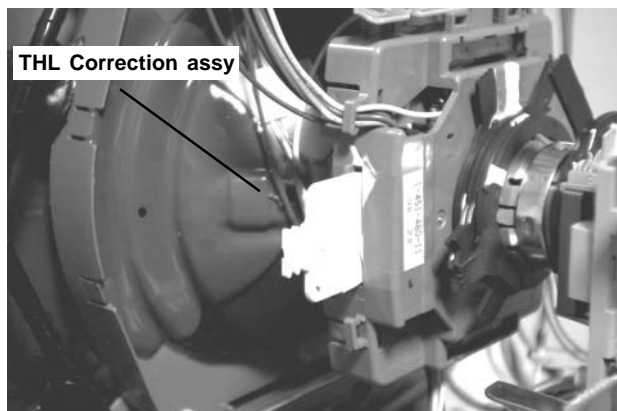
HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.

YCH Adjustment

YCH VR

Deflection Yoke

TLV Adjustment

TLV VR

Deflection Yoke

H-TRAP Adjustment

HTRAP VR

Deflection Yoke
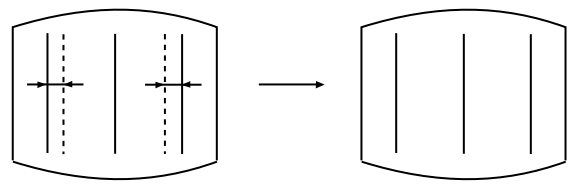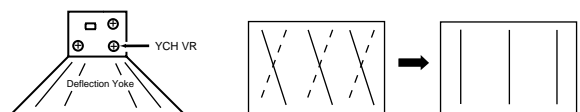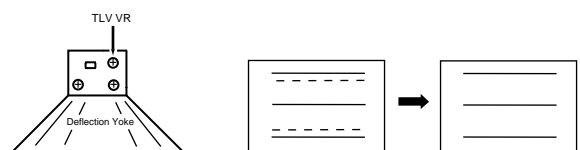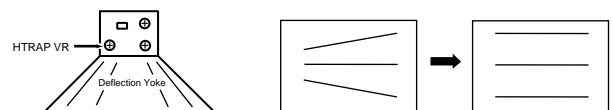
The H-TRAP should not be adjusted unless absolutely necessary as it affects the TLV settings.

Layout of each control

Purity magnet
BMC (Hexaploe) magnet
V STAT convergence magnet
Y-splitting axis correction magnet
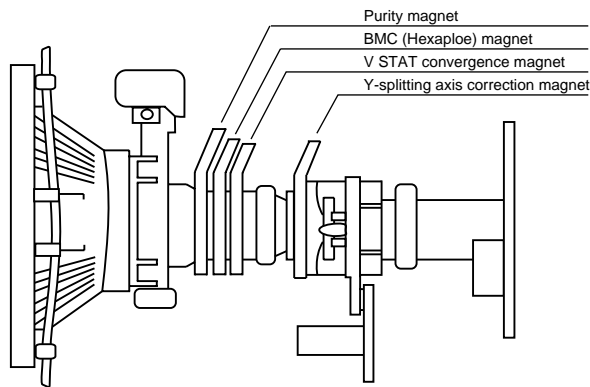
Note : If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.

a-d: screen-corner convergence defect

Install the permalloy assembly for the area that needs correcting.

Permalloy Assy
X-4387-214-1

Convergence adjustment with permalloy
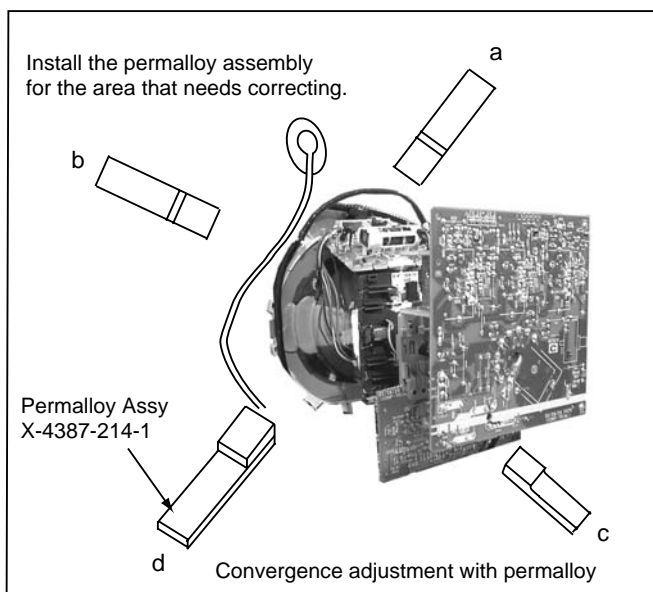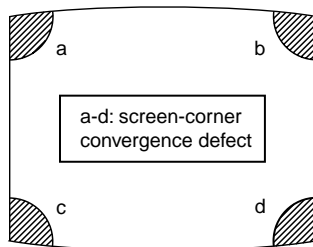
3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen.
   Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.

Focus
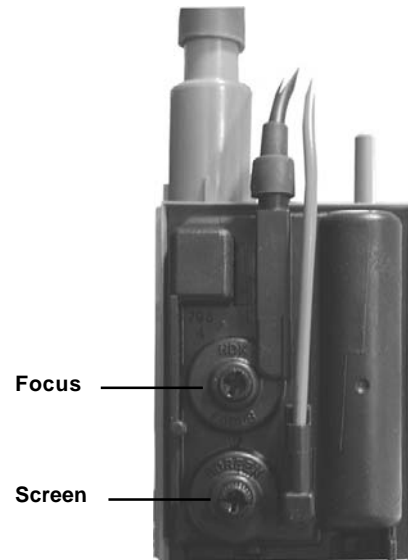
Screen

3-4. Screen (G2), White Balance

[Adjustment in the service mode using the remote commander]

G2 adjustment

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 165V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control [SCREEN] located on the flyback transformer to the point just before the flyback return lines disappear.

White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Program the Remote Commander for operation in Service Mode. [See Page 20].
3. Enter into the 'Service Mode' by pressing 'VIDEO' button twice and 'MENU' on the Service Commander.
4. Select 'Service' from the on screen menu display and press 'Right Arrow'.
5. The 'Service' menu will appear on the screen.[See Page 21]
6. Set the 'Contrast' to MAX.
7. Set the 'R-Drive' to 50.
8. Adjust the 'G-Drive' and the 'B-Drive' so that the white balance becomes optimum.
9. Press the 'OK' button to write the data for each item.
10. Set the 'Contrast' to MIN.
11. Set the 'R-Cutoff' to 29.
12. Adjust the 'G-Cutoff', and the 'B-Cutoff' with the left and right buttons on the remote commander so that the white balance becomes optimum.
13. Press the 'OK' button to write the data for each item.

SECTION 4 CIRCUIT ADJUSTMENTS

4-1. Electrical Adjustments

Service adjustments to this model can be performed using the supplied remote Commander RM-932.

Programming the Remote Commander for Operation in Service Mode

1. Press the VCR/TV/DVD button until the TV LED lights.

2. Press and hold the yellow button for approx. 5 seconds until the TV LED flashes quickly.

3. Press 99999. All three LED's should light.
   The remote commander is now set to Service Mode.

4. To return the remote commander to normal operation mode repeat steps 1. and 2. then press 00000. All three LED's should light.
   The remote commander is now set to normal mode.

Setting the TV into Service Mode

1. Program the remote commander for operation in Service Mode as described above.

2. Turn on the TV main power switch.

3. Press the video standby button on the remote commander twice.
   'TT __' will appear in the upper right corner of the screen. Other status information will also be displayed.

4. Press 'MENU' on the remote commander to obtain the following menu on the screen.

```
Geometry
Service
Scanrate
DAC
Dyn. Conv.
PiP
Sound
IF adjust
Error Menu

AE6B v0.14 (Jun 2001)
Factory data FFh  FFh
MSP Device : MSP3411G
```

5. Move to the corresponding adjustment item using the up or down arrow buttons on the Remote Commander.
6. Press the right arrow button to enter into the required menu item.
7. Press the 'Menu' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

Note :
   After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

GEOMETRY		
ABL TH	(0, 3)	0
ABL MODE	(0, 3)	0
P ABL	(0, 15)	15
V SIZE	(0, 63)	35
V POSITION	(0, 63)	33
V COMP	(0, 3)	1
V LIN	(0, 15)	7
S CORRECTION	(0, 15)	7
H SIZE	(0, 63)	44
PIN AMP	(0, 63)	32
UP CORNERPIN	(0, 63)	29
M PIN	(0, 3)	2
LO CORNERPIN	(0, 63)	29
TRAPEZIUM	(0, 15)	2
H POSITION	(0, 63)	40
AFC BOW	(0, 15)	8
AFC ANGLE	(0, 15)	9
LEFT BLK	(0, 63)	34
RIGHT BLK	(0, 63)	17
V ASPECT	(0, 63)	47
AKBTIM1	(0, 3)	2
AKBTIM2	(0, 1)	0
IKR		*1*
HNG		*0*
VNG		*0*

DYN. CONV.		
RANGE	(0, 63)	63
YupL	(0, 1)	0
VAL	(0, 63)	30
YlowL	(0, 1)	0
VAL	(0, 63)	31
MBOWupL	(0, 1)	0
VAL	(0, 63)	31
MBOWlowL	(0, 1)	0
VAL	(0, 63)	32
HAMPL	(0, 1)	0
VAL	(0, 63)	37
YupR	(0, 1)	0
VAL	(0, 63)	30
YlowR	(0, 1)	0
VAL	(0, 63)	30
MBOWupR	(0, 1)	0
VAL	(0, 63)	32
MBOWlowR	(0, 1)	0
VAL	(0, 63)	32
HAMPR	(0, 1)	0
VAL	(0, 63)	36
UP Y	(0, 1)	0
VAL	(0, 63)	31
LOW Y	(0, 1)	0
VAL	(0, 63)	33
H STAT	(0, 1)	0
VAL	(0, 63)	33
UP CORR	(0, 1)	0
VAL	(0, 63)	34
LOW CORR	(0, 1)	0
VAL	(0, 63)	19

IF ADJUST

Automute	1
Audio Gain	0
L Gating	0

SERVICE

SUB COL	(0, 63)	Adj
SUB HUE	(0, 63)	31
SUB SHARP	(0, 63)	30
SUB BRIGHT	(0, 63)	13
SUB CONT	(0, 15)	12
R-DRIVE	(0, 63)	50
G-DRIVE	(0, 63)	Adj
B-DRIVE	(0, 63)	Adj
R CUTOFF	(0, 63)	28
G CUTOFF	(0, 63)	24
B CUTOFF	(0, 63)	46
Br TXT	(0, 15)	7
Br OSD	(0, 15)	10

DAC

CONFIG		*00000000*
MPIN CONT	(0, 255)	96
HLIN	(0, 255)	83
HTRAP	(0, 255)	127
ROT. COIL	(0, 255)	130
PHOCUS PH	(0, 255)	90

SOUND

M-N	(0, 511)	200
M-D	(-128, -1)	-20
M-S	(+0, +127)	+20
S-M	(+0, +127)	+10
D-M	(-128, -1)	-10
N-M	(0, 1023)	496
BBE	(+0, +68)	+28
B1	(-96, +96)	+0
B2	(-96, +96)	+0
B3	(-96, +96)	+0
B4	(-96, +96)	+0
B5	(-96, +96)	+0
SW L	(-128, +0)	+0
SW F	(+5, +40)	+30
NICAM C AD		10001
NICAM Error	(0, 2047)	0
Stereo	(-128, +127)	+0
Status		0000000110

ERROR MENU

E02	OCP	(0, 255)	0
E03	OVP	(0, 255)	0
E04	VSYNC	(0, 255)	0
E05	IKR	(0, 255)	0
E06	IIC	(0, 255)	0
E07	NVM	(0, 255)	0
E08	HPROT	(0, 255)	0
E09	TUNER	(0, 255)	0
E10	SOUNDP	(0, 255)	0
E11	-	(0, 255)	0
E12	SCANRATE	(0, 255)	0
E13	DAC	(0, 255)	0
E14	BACKEND	(0, 255)	0
E15	DYN CON	(0, 255)	0
E16	PIP	(0, 255)	0

WORKING TIME

HOURS	14
MINUTES	7

Sub Brightness Adjustment

1. Input a Monoscope pattern.
2. Program the Remote Commander for operation in Service Mode. [See Page 20].
3. Press 'VIDEO' 'VIDEO' 13 on the Remote Commander.
4. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

Sub Contrast Adjustment

1. Input a video signal that contains a small 100% white area on a black background.
2. Connect a digital voltmeter to Pin 10 of J7375 [C Board].
3. Program the Remote Commander for operation in Service Mode. [See Page 20].
4. Adjust the Sub-Contrast [Using 'VIDEO' 'VIDEO' '11'] to obtain a voltage of 105 +/- 5V.

Sub Colour Adjustment

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 6 of CN7001 [A Board].
3. Program the Remote Commander for operation in Service Mode. [See Page 20].
4. Adjust the 'Sub Colour' [Using 'VIDEO' 'VIDEO' '12'] so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.

Same Level

B-Out Waveform
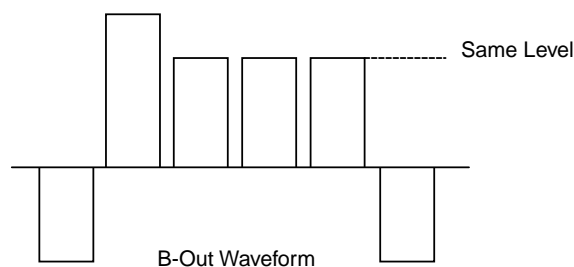
Deflection System Adjustment

1. Program the Remote Commander for operation in Service Mode. [See Page 20] and enter into the 'Geometry' service menu.
2. Select and adjust each item in order to obtain the optimum image.

 V SIZE

 V LIN

 AFC BOW

 V POSITION

 H POSITION

 H SIZE

 PIN AMP

 TRAPEZIUM

 UP CORNER PIN

 AFC ANGLE

 LO CORNER PIN

GEOMETRY

ABL TH	(0, 3)	0
ABL MODE	(0, 3)	0
P ABL	(0, 15)	15
V SIZE	(0, 63)	35
V POSITION	(0, 63)	33
V COMP	(0, 3)	1
V LIN	(0, 15)	7
S CORRECTION	(0, 15)	7
H SIZE	(0, 63)	44
PIN AMP	(0, 63)	32
UP CORNERPIN	(0, 63)	29
M PIN	(0, 3)	2
LO CORNERPIN	(0, 63)	29
TRAPEZIUM	(0, 15)	2
H POSITION	(0, 63)	40
AFC BOW	(0, 15)	8
AFC ANGLE	(0, 15)	9
LEFT BLK	(0, 63)	34
RIGHT BLK	(0, 63)	17
V ASPECT	(0, 63)	47
AKBTIM1	(0, 3)	2
AKBTIM2	(0, 1)	0
IKR		*1*
HNG		*0*
VNG		*0*

4-2. TEST MODE 2:

Test Mode 2 is available by programming the Remote Commander for operation in Service Mode [As shown on Page 20] then pressing the 'VIDEO' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release the 'Test mode 2', press 00, 10, 20 ... twice or switch the TV set into Stand-by mode. In 'TT Menu' mode, it is possible to remove the Menu from the screen by pressing the Speaker Off button once. Pressing the Speaker OFF button a second time will cause the Menu to reappear. The function is kept even when the menu is not displayed on screen !!.

00	'TT' mode off
01	Picture maximum
02	Picture minimum
03	Set speaker/headphone Volume to 35%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing mode
08	Shipping Condition
11	Sub picture adjustment
12	Sub colour adjustment
13	Sub Brightness adjustment
14	Text H Position adjustment
15	Rotation Coil Test
16	Picture level 50%
19	Factory Mode Enable/Disable
21	Destination ADEKR
22	Destination BL
23	Destination ADEKR
24	Destination U
25	Destination ADEKR
26	Destination BL
27	Destination ADEKR
28	Destination ADEKR
31	Auto Shutoff Enable/Disable
36	Velocity Modulation (VM) OFF/ON test
41	Re-initialise NVM
43	Select Dual A sound
44	Select Dual B sound
45	Select Mono sound
46	Select Stereo sound
48	Set NVM as non virgin
49	Set NVM as virgin
53	FM Overmodulation Enable/Disable
55	Tuner selection (SONY/ALPS)
59	Select Model 3 Scarts + PIP or 2 Scarts
68	Enable/Disable X26 countermeasure (N problem)
73	Enable Zweiton D/K2 system (6.5/6.74)
74	Enable Zweiton D/K3 system (6.5/5.74)
78	Balance full right
79	Balance full left
87	Local keys test
99	Display Error and Working Time menu

VM (VELOCITY MODULATION)

A 1/2 (VIDEO AND AUDIO PROCESSORS, AUDIO OUTPUT, VERTICAL DEFLECTION)

A 2/2 (VIDEO AND AUDIO PROCESSORS, AUDIO OUTPUT, VERTICAL DEFLECTION)

SCAN RATE CONVERTER, COLOUR DECODER AND I/O VIDEO SWTICH IC3200

100Hz BUFFER Y SCAN RATE BACKEND Q3300

Y IN 100
BLK 100
H SYNC
V SYNC
BLK 1
BLK 2
RED IN 1
GREEN IN 1
BLUE IN 1
RED IN 2
GREEN IN 2
BLUE IN 2
VIDEO RF
V IN 1

AY OUT 100
NC
H OUT 100
V OUT 100
FBL 1
FBL 2
R IN 1
G IN 1
B IN 1
R IN 2
G IN 2
B IN 2
CVBS 1
CVBS 2

AU OUT 100
AY OUT 100
X IN
X OUT
CVBS OUT 1
CVBS OUT 2
CVBS OUT 3
CVBS 7
CVBS 6
CVBS 5
CVBS 4
CVBS 3

CVBS PIP
C FRONT
Y/CVBS FRONT
C IN 3
V/Y IN 3
V IN 2

6dB AMPLIFIER FOR THE MONITOR OUTPUT CVBS (2ND SCART) Q3204

6dB AMPLIFIER FOR THE MONITOR OUTPUT CVBS (2ND SCART) Q3201

100Hz BUFFER U SCAN RATE BACKEND Q3302

100Hz BUFFER U SCAN RATE BACKEND Q3301

V OUT 2
V IN 100
U IN 100

VIDEO RF

COINCIDENCE DETECTOR Q1005

PART OF OVERVOLTAGE PROTECTION Q5816

TO A BOARD SHEET1

CN6200
TO G BOARD CN6008

CN0101

OVP

SCL A3
SDA B3
LED A4
SIRCS B4
AGC A5
MODE 3 B5
OVP B6
GROUP DELAY A7
OCP B7
COINCIDENCE A8
MAIN RY B8
DGC RY A9
B TEXT B10
G TEXT B11
RESET AUDIO A12
R TEXT B12
AUDIO MUTE A13
FS 100 B13
MODE 1 A14
AV LINK A15
MODE 2 B15
LINE MUTE B16
H SYNC A17
V SYNC B17
TXT VIDEO A19
KEY A20
12C DISABLE B20

TO M BOARD CN0001

H SYNC
V SYNC
CVBS TXT

+3.3V

12 C ADAPTOR 5V - 3.3V Q3500

12 C ADAPTOR 5V - 3.3V Q3501

CN0102 SERVICE CONNECTOR

SCL 2
SDA 3
CS 4
AGC 5

F2(LED AND IR RECEIVER, POWER SWITCH)

POWER

CN6981
1
2

CN6982
6
5

IC0981
OUT

D0993
+5V
LED
SIRCS

CN0981
2
1

TO A BOARD CN003

C (CRT DRIVE)

CN7301

1 R-
2 R+
3 G-
4 G+
5 B-
6 B+
9 IK

TO A BOARD CN7001

IC7300 VIDEO OUT (RED)
VB
VI
IK
VO

IC7325 VIDEO OUT (GREEN)
VB
VI
IK
VO

IC7350 VIDEO OUT (BLUE)
VB
VI
IK
VO

STANBY SW Q7355
STANBY SW Q7352
STANBY SW Q7353

+12V
VOLTAGE DET Q7354, 7350

FV
TO D BOARD FV (T6804)

J7375
G4
R
G
B
G2
H1

PICTURE TUBE

HV
TO D BOARD HV (T8800)

CN7300
H1
TO D BOARD CN6500

RV7375 G2

H2(AUDIO IN, Y/C IN, HEADPHONE IN)

CN2908
WOOFER MUTE 1
R OUT 2
R IN 3
L IN 5
L OUT 6

TO A BOARD CN2502

J2900

J2900
HEADPHONES

CN2906
AUDIO L 6
AUDIO R 9
Y/CVBS 4
C 2

TO A BOARD CN2000

CN2900
L
R
VIDEO
Y/C

D (DEFLECTION)

DY ASSY

G (POWER SUPPLY)

5-1. BLOCK DIAGRAMS (4)

M (MICRO PROCESSOR)

5-2. CIRCUIT BOARD LOCATION

- C Board
- VM Board
- H2 Board
- F2 Board
- D Board
- M Board
- A Board
- G Board

5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note :
- All capacitors are in µF unless otherwise noted.
- pF : µµF 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
  k = 1000 ohms, M = 1,000,000 ohms

- ⊶〰⊶ : nonflammable resistor.
- ⊶〰⊶ : fusible resistor.
- △ : internal component.
- ▭ : panel designation or adjustment for repair.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital mutimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerences.

- ▬▬▬ : B + bus.
- ▬ ▬ ▬ : B - bus.
- ⇨ : RF signal path.
- ⊥ : earth - ground.
- 卅 : earth - chassis.

Reference Information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	⌧	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque ⚠ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié. specified.

A VIDEO & AUDIO PROCESSORS
1/2 AUDIO OUTPUT, VERTICAL DEFLECTION

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ A Schematic [Video & Audio Processors, Audio Output,
Vertical Deflection] page 1/2 ~

~ A Board Waveforms ~

TP1	TP2
744 mVp-p (V)	53 Vp-p (V)

TP3	TP4
1.4 Vp-p (H)	688 mVp-p (H)

TP5	TP6
264 mVp-p (H)	272 mVp-p (H)

~ A Board Difference Table ~

Ref	29LS60B	29LS60E	29LS60K
C1011	120PF	-	-
C1012	56PF	-	-
C1016	10PF	-	-
C1017	68PF	-	-
L1004	18UH	-	-
Q1002	MSD601-RST1	-	-
Q1003	DTC114EKA-T146	-	-
R1011	330	-	-
R1012	330	-	-
R1014	-	SHORT 0	SHORT 0
R1015	470	-	-
R1016	100	-	-
R1018	2.2K	-	-
R1020	SHORT 0	-	-
TU1000	BTF-EF411	BTF-EC411	BTF-EC411

A 2/2

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ A Schematic [Video & Audio Processors, Audio Output, Vertical Deflection] page 2/2 ~

~ **A Printed Wiring Board Conductor side A** ~

REF
0XXX=MICRO
1XXX=IF
2XXX=AUDIO
3XXX=VIDEO
5XXX=DEFLECTION
6XXX=POWER
7XXX=RGB

A-1631-XXX-A

>PF-LP<

(1-719-913-11)

SONY
1-681-585-11

~ A Printed Wiring Board Conductor side B ~

- 30 -

~ VM Board Waveforms ~

TP1	TP2	TP3
5ms/div	5ms/div	5ms/div
1.54 Vp-p (H)	1.4 Vp-p (H)	20 Vp-p (H)

~ VM Board Voltage Table ~

Ref	(e)(s)	(b)(g)	(c)(d)
Q7400	5.0	5.7	8.7
Q7401	0.9	1.5	4.1
Q7402	5.5	6.1	8.9
Q7403	5.1	5.5	8.9
Q7404	4.7	4.1	0
Q7405	5.1	4.7	0
Q7406	134	133.8	68
Q7407	1.1	1.4	68
Q7408	6.3	5.6	2.5
Q7409	5.7	6.3	0.9

~ A Board Location Table (A Side) ~

DIODE								IC				
D0101	M - 7	D2014	K - 9	D3005	M - 7	D3017	M - 4	D3028	M - 2	D5306	C - 5	D7004 F - 7
D0104	L - 4	D2015	K - 9	D3007	M - 7	D3018	N - 3	D3201	J - 2	D5307	C - 6	D5809 K - 8
D0110	I - 4	D2018	M - 2	D3008	M - 7	D3019	N - 3	D5103	D - 6	D5400	E - 4	IC
D0111	H - 2	D2019	M - 2	D3009	N - 7	D3021	M - 4	D5104	E - 5	D5404	F - 3	IC5104 D - 6
D0112	M - 4	D2502	H - 9	D3011	M - 4	D3023	M - 4	D5200	D - 2	D5405	F - 3	IC5200 B - 3
D0113	M - 5	D3001	M - 7	D3013	M - 4	D3024	M - 4	D5201	E - 2	D5807	F - 7	IC5201 C - 4
D1006	M - 10	D3003	M - 7	D3015	M - 4	D3026	M - 2	D5305	D - 6	D6200	J - 6	IC5300 E - 4

IC5301	D - 4	IC6206	H - 3	
IC5302	B - 4	IC6207	H - 4	
IC5400	G - 4	TRANSISTOR		
IC6201	G - 10	Q5202	E - 2	
IC6202	I - 6	Q5301	C - 5	
IC6203	J - 6	Q5306	E - 4	
IC6205	D - 5	Q5404	F - 4	

~ A Board Location Table (B Side) ~

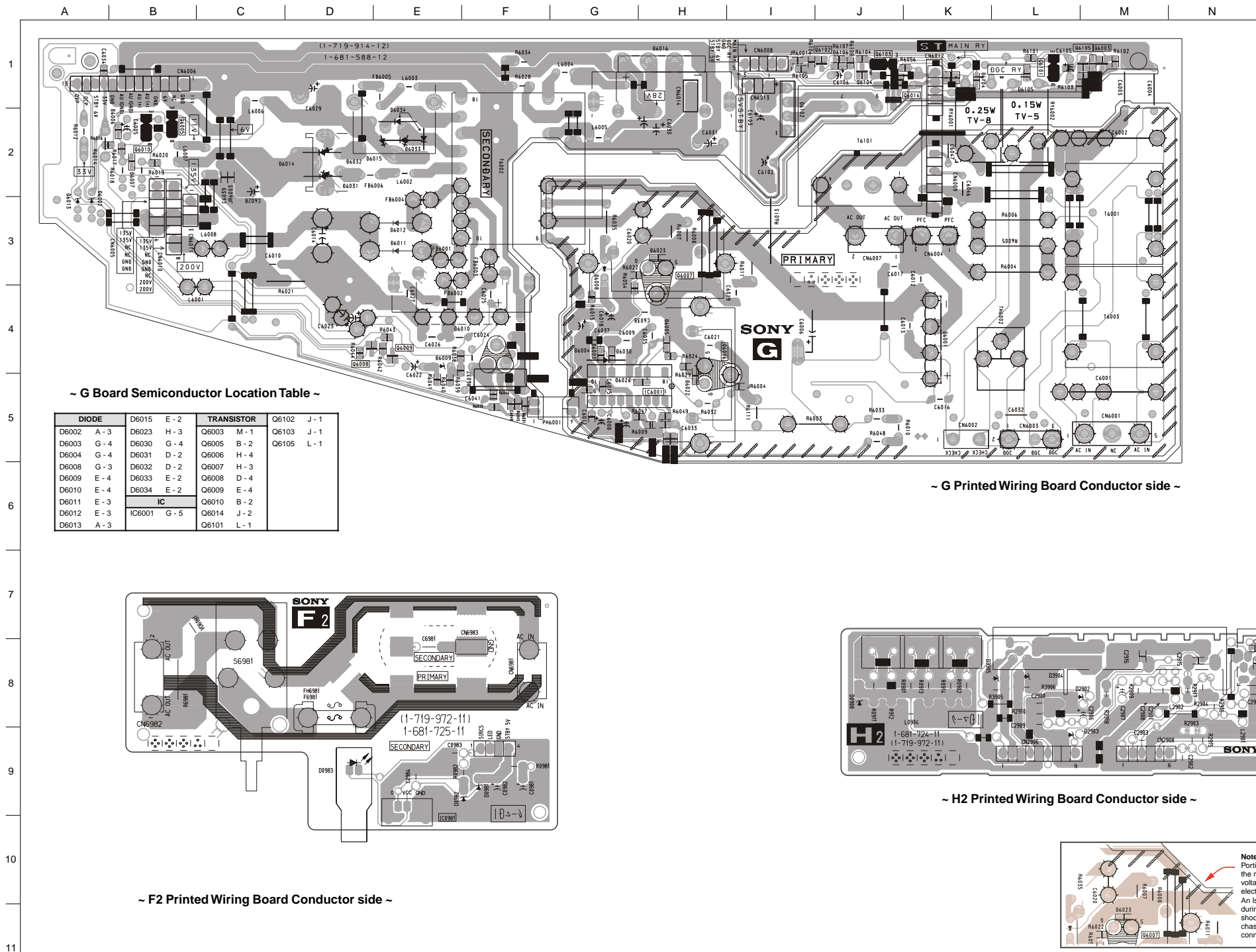| DIODE		D2503	G - 9	D3024	B - 3	D5309	J - 3	IC5103	L - 3	TRANSISTOR		Q3201	C - 2	Q5300	M - 4	Q7003	H - 6
D0101	B - 7	D3001	B - 7	D3026	B - 2	D5400	K - 4	IC5104	K - 6	Q1000	C - 6	Q3202	C - 3	Q5301	L - 5	Q7009	K - 6
D0104	C - 5	D3003	B - 7	D3028	C - 2	D5401	J - 4	IC5200	M - 3	Q1001	D - 6	Q3204	C - 3	Q5302	K - 7	Q7011	J - 6
D0110	G - 4	D3005	B - 7	D3201	F - 2	D5404	J - 3	IC5201	L - 4	Q1004	D - 10	Q3300	F - 3	Q5303	M - 4	Q7012	J - 5
D0111	G - 2	D3007	B - 6	D5103	L - 6	D5405	I - 3	IC5300	J - 3	Q1005	B - 2	Q3301	F - 3	Q5304	M - 5	Q7013	J - 6
D0112	C - 5	D3008	B - 6	D5104	J - 5	D5809	K - 8	IC5301	K - 4	Q1006	B - 3	Q3302	F - 3	Q5305	K - 3	Q7014	J - 6
D0113	C - 5	D3009	B - 6	D5200	K - 2	D5811	L - 8	IC5302	M - 4	Q2000	C - 9	Q3500	F - 3	Q5306	K - 4	Q7015	I - 5
D1006	B - 10	D3011	C - 4	D5202	L - 4	D5812	L - 8	IC5400	I - 3	Q2002	D - 9	Q3501	F - 3	Q5400	J - 4	Q7016	I - 5
D2014	C - 9	D3013	C - 4	D5300	L - 5	D6200	F - 7	IC6200	I - 9	Q2003	D - 9	Q5101	M - 5	Q5401	K - 4	Q7017	I - 6
D2015	D - 9	D3017	B - 4	D5303	N - 4	IC		IC6201	I - 8	Q2004	E - 7	Q5200	M - 4	Q5402	J - 5	Q7018	I - 5
D2016	E - 8	D3018	B - 3	D5304	M - 4	IC2000	C - 8	IC6202	F - 6	Q2005	E - 7	Q5201	N - 3	Q5403	K - 4	Q7019	I - 5
D2018	B - 2	D3019	B - 3	D5305	L - 6	IC2001	D - 9	IC6203	E - 6	Q2501	G - 8	Q5202	K - 3	Q5404	J - 4	
D2019	B - 2	D3021	C - 4	D5306	L - 5	IC2500	F - 8	IC6205	K - 5	Q2502	G - 9	Q5203	J - 2	Q5813	J - 8	
D2500	G - 9	D3023	B - 3	D5307	L - 7	IC3100	E - 5	IC6206	G - 3	Q2503	G - 9	Q5204	L - 4	Q5815	L - 8	
D2502	G - 9			D5308	M - 4	IC3200	E - 3	IC6207	G - 4	Q3200	C - 3	Q5205	M - 3	Q5816	L - 8	

~ A Board Semiconductor Voltage Table ~

Ref	(s)	(g)	(d)	Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)	Ref	(e)	(b)	(c)
Q3500	2.7	3.3	3.9	Q2002	0	0	4	Q3204	5	4.4	3.4	Q5205	1.9	1.2	0	Q5813	0	7.9	0	Q7015	11.6	10.9	8.8
Q3501	2.7	3.3	4	Q2003	0	0	4	Q3300	0.7	1.3	5	Q5300	0	0.4	2.2	Q5814	0	0	0	Q7016	6	6.6	10.9
Q5301	0	5.1	51.2	Q2004	3.3	3.9	8.3	Q3301	1.9	1.2	0	Q5301	5.1	0	51.2	Q5815	0	0	5	Q7017	2.7	2	0
Q5404	0	0	0.5	Q2005	3.3	3.9	8.3	Q3302	1.9	1.2	0	Q5302	8.9	5.7	0	Q5816	5	5	0	Q7018	11.6	10.9	8.6
Ref	(e)	(b)	(c)	Q2501	0	0	15.2	Q3500	3.3	2.7	3.9	Q5304	0	0.4	5.6	Q7003	5.6	6.2	8.8	Q7019	6	6.6	10.9
Q1001	3.2	3.9	8.3	Q2502	0	0.7	0	Q3501	3.3	2.7	4	Q3400	0	0	0.1	Q7009	3.2	7	0.1	Q7020	8.9	8.9	0
Q1004	1.9	1.3	0	Q2503	0.6	0.6	0.5	Q5101	0	0.4	6.4	Q5401	0	0	7.9	Q7011	2.5	1.9	0	Q7021	2.7	2.7	8.9
Q1005	0	0.5	5	Q3200	1.9	2.5	4.4	Q5201	2.8	3.4	7.9	Q5402	0	0	-11.3	Q7012	11.6	10.9	8.7				
Q1006	5	4.7	1	Q3201	1.9	2.5	4.4	Q5202	0.2	0.8	11.7	Q5403	-13.5	-11.2	-8.3	Q7013	6	6.6	10.9				
Q2000	4.2	4.8	8.3	Q3202	5	4.4	3.4	Q5203	0.2	0.8	11.7	Q5404	0	0	0.5	Q7014	2.5	1.8	0				

~ A Board IC Voltage Table ~

Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC3100	1	1.3	IC5103	6	1.8	IC5201	5	9.3	IC5400	6	13.7	IC7002	32	8.9			
	2	1.7		7	2		6	0.5		7	1.4		33	0			
	3	2.6		8	0		7	12.1	IC7002	1	3.6		34	4.7			
	4	0		9	3.1		8	-14.1		2	0		35	4.7			
	5	2.5		10	3	IC5300	1	6		3	4.4		36	4.7			
	6	3.3		11	5		2	6		4	4.8		37	8.9			
	7	0		12	5		3	6		5	3.5		38	0			
	8	0		13	5		4	0		6	3.4		39	4.8			
	9	1.1		14	0		5	6		7	7.6		40	4.8			
	10	1.1		15	0		6	6		8	0		41	4.8			
	11	0		16	5		7	6		9	0		42	0			
	12	0	IC5200	1	4.8		8	12		10	0.4		43	0			
	13	0		2	4.9	IC5301	1	1.7		11	1.8		44	0			
	14	0		3	4.8		2	8.5		12	0.4		45	6.3			
	15	0.5		4	4.8		3	6.5		13	0.9		46	8.9			
	16	0.3		5	5		4	0		14	5		47	8.9			
	17	0.3		6	5		5	6.5		15	2.5		48	6			
	18	0.3		7	5		6	7.1		16	0		49	2.5			
	19	3.3		8	5		7	0.4		17	3		50	4.1			
	20	0		9	4.9		8	12		18	2.7		51	0			
	21	3.3		10	12.1	IC5302	1	0		19	3.9		52	6			
	22	3.3		11	4.1		2	5.8		20	0		53	5.8			
	23	0		12	5		3	6.3		21	6.1		54	5.8			
	24	3.2		13	5		4	0		22	2.7		55	0.4			
	25	1.2		14	1.9		5	6.6		23	8.8		56	5.8			
	26	3.2		15	1.1		6	6.5		24	0		57	5.8			
	27	2.1		16	0		7	0.4		25	4.3		58	5.8			
	28	0.3		17	0		8	12		26	3.2		59	0.3			
IC5103	1	3.3		18	0	IC5400	1	1.4		27	5.2		60	0			
	2	3.3	IC5201	1	9.3		2	13.2		28	0.3		61	0			
	3	1.9		2	3.8		3	-12.5		29	4.9		62	2.9			
	4	2.6		3	3.8		4	-15.4		30	3.4		63	3.7			
	5	2.5		4	-15.4		5	-0.4		31	5.6						

~ F2 Board Schematic Diagram [Power Switch & Fuse] ~

~ H2 Board Schematic Diagram [Front AV & Headphone] ~

F2.-29LS60

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

F2 POWER SWITCH AND FUSE

H2.-29LS60

H2 FRONT AV AND HEADPHONE

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

B-#SSAE6B<...>-VM.-29LS60

VM VELOCITY MODULATION

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ VM Board Schematic Diagram [Velocity Modulation] ~

~ G Board Semiconductor Location Table ~

DIODE				TRANSISTOR			
D6002	A - 3	D6015	E - 2	Q6003	M - 1	Q6102	J - 1
D6003	G - 4	D6023	H - 3	Q6005	B - 2	Q6103	J - 1
D6004	G - 4	D6030	G - 4	Q6006	H - 4	Q6105	L - 1
D6008	G - 3	D6031	D - 2	Q6007	H - 3		
D6009	E - 4	D6032	D - 2	Q6008	D - 4		
D6010	E - 4	D6033	E - 2	Q6009	E - 4		
D6011	E - 3	D6034	E - 2	Q6010	B - 2		
D6012	E - 3	**IC**		Q6014	J - 2		
D6013	A - 3	IC6001	G - 5	Q6101	L - 1		

~ G Printed Wiring Board Conductor side ~

~ F2 Printed Wiring Board Conductor side ~

~ H2 Printed Wiring Board Conductor side ~

Note :
Portions of the circuit contained within the marked areas as shown have high voltages present. Use care to prevent electric shock during inspection or repair. An Isolation Transformer must be used during any Service work to avoid possible shock hazard due to live chassis. The chassis of this receiver is directly connected to the power line.

D DEFLECTION

COMPONENTS MARKED AS xx ARE NOT FITTED ON THIS MODEL

~ D Printed Wiring Board Conductor side ~

~ D Board Waveforms ~

TP1	TP2	TP3	TP4	TP5
2.44 Vp-p (V)	148 Vp-p (V)	2.36 Vp-p (H)	152 Vp-p (H)	1.12 kVp-p (H)

TP6	TP7	TP8	TP9	TP10
5.56 Vp-p (H)	1.84 kVp-p (H)	242 Vp-p (H)	2.12 Vp-p (H)	106.4 Vp-p (H)

~ D Board IC Voltage Table ~

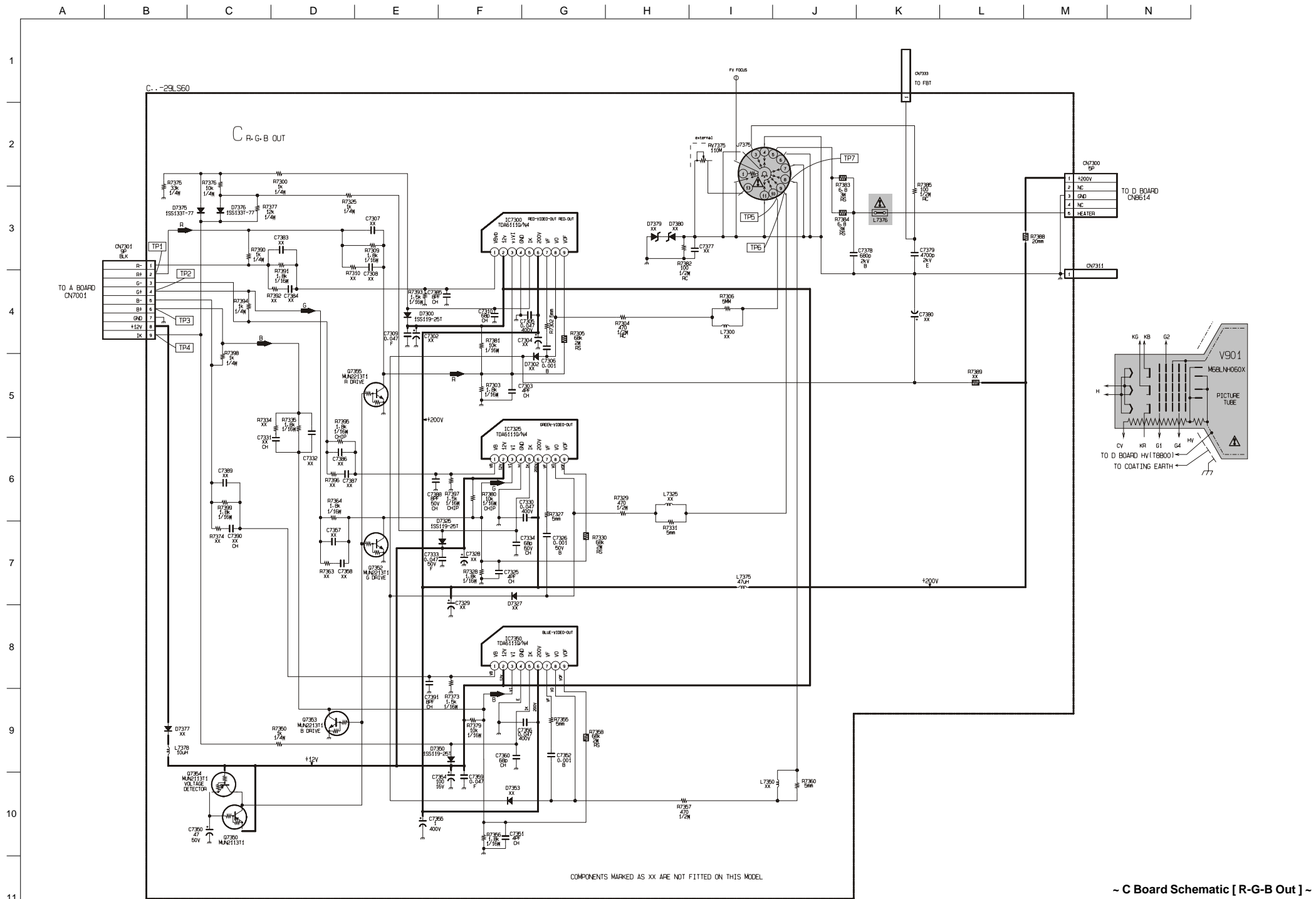| IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC8100	1	0.3
	2	4.3
	3	4.1
	5	4.1
	6	3.0
	7	0.4
IC8101	1	0.3
	2	4.3
	3	4.4
	5	4.4
	6	3.0
	7	0.4
IC8102	1	4.1
	2	0.4
	3	0.4
	5	0.4
	6	0.4
	7	0.4
IC8103	1	2.5
	2	2.1
	3	1.7
	5	1.6
	6	1.0
	7	1.1

~ D Board Semiconductor Voltage Table ~

Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)
Q8100	0	0.6	3.6	Q8110	2.4	3.1	0	Q8128	3.4	1.5	8.9	Q8801	0	0.4	64.7
Q8101	0	0.6	4.3	Q8113	0.3	0.2	8.9	Q8132	0	0	3.4	Q8802	0	0.4	73.2
Q8102	0	0.3	4.3	Q8115	8.6	8.9	0	Q8135	2.6	3.2	8.9	Q8807	0	6.3	0
Q8103	4.0	0	8.9	Q8118	0	0	5.0	Q8136	2.5	1.8	0	Q8818	0	0	5.0
Q8104	0	0.4	3.1	Q8119	0.7	1.4	0	Q8137	1.8	2.5	8.9	Q8822	5.5	4.9	0
Q8105	0	0.4	3.2	Q8120	0.7	2.3	0	Q8201	0	0.6	3.9	Q8823	8.9	8.5	0
Q8106	0	0.3	4.3	Q8122	0.5	1.4	0	Q8202	0	0.8	3.4	Q8805	0	2.5	33
Q8107	0	0.3	4.2	Q8123	0.5	1.4	0	Q8203	1.4	0.9	0	Q8806	0	1.2	135
Q8108	2.4	3.2	0	Q8127	1.4	1.5	0	Q8455	1.1	1.7	8.9	Q8851	0	5.4	81.5

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ C Board Schematic [R-G-B Out] ~
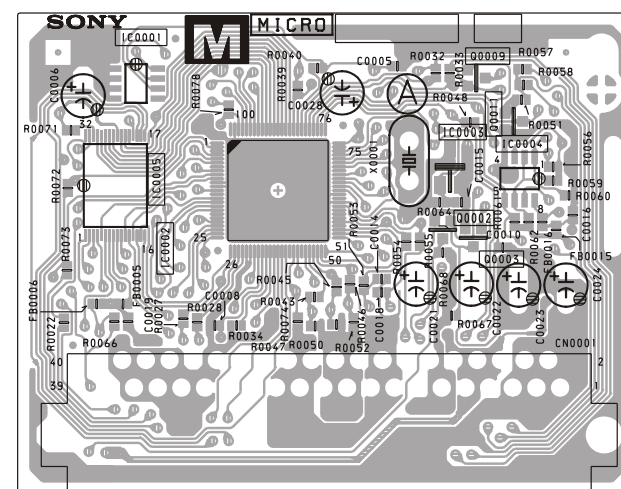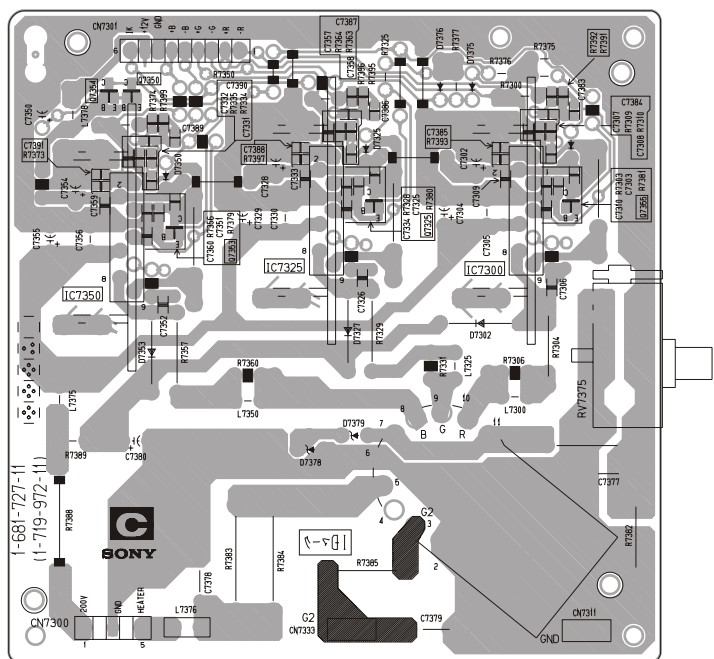
~ M Printed Wiring Board (B) side ~

~ C Board Waveforms ~

2.16 Vp-p (H)   2.0 Vp-p (H)

1.9 Vp-p (H)   6.8 Vp-p (H)

116 Vp-p (H)   100 Vp-p (H)

100 Vp-p (H)
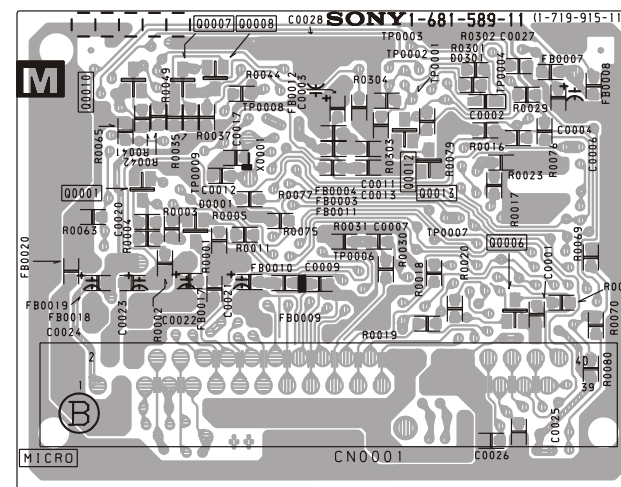
~ C Board Semiconductor Voltage Table ~

Ref	(e)	(b)	(c)
Q7350	12	11.98	0
Q7352	0	0	3.8
Q7353	0	0	3.8
Q7354	11.98	12	0
Q7355	0	0	3.8

~ C Board IC Voltage Table ~

IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC7300	1	3.9
	3	3.8
	5	7.5
	6	200
	7	140
	8	153
	9	140
IC7325	1	3.9
	3	3.8
	5	7.7
	6	200
	7	140
	8	153
	9	140
IC7350	1	3.9
	3	3.8
	5	7.5
	6	200
	7	139
	8	148
	9	138
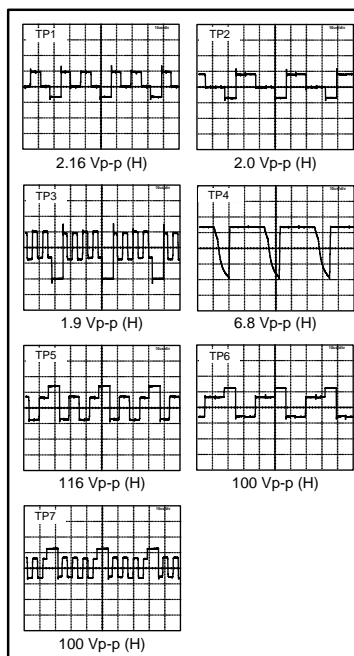
M MICRO PROCESSOR

COMPONENTS MARKED AS XX ARE NOT FITTED ON THIS MODEL

~ **M Board Schematic Diagram [Micro Processor]** ~
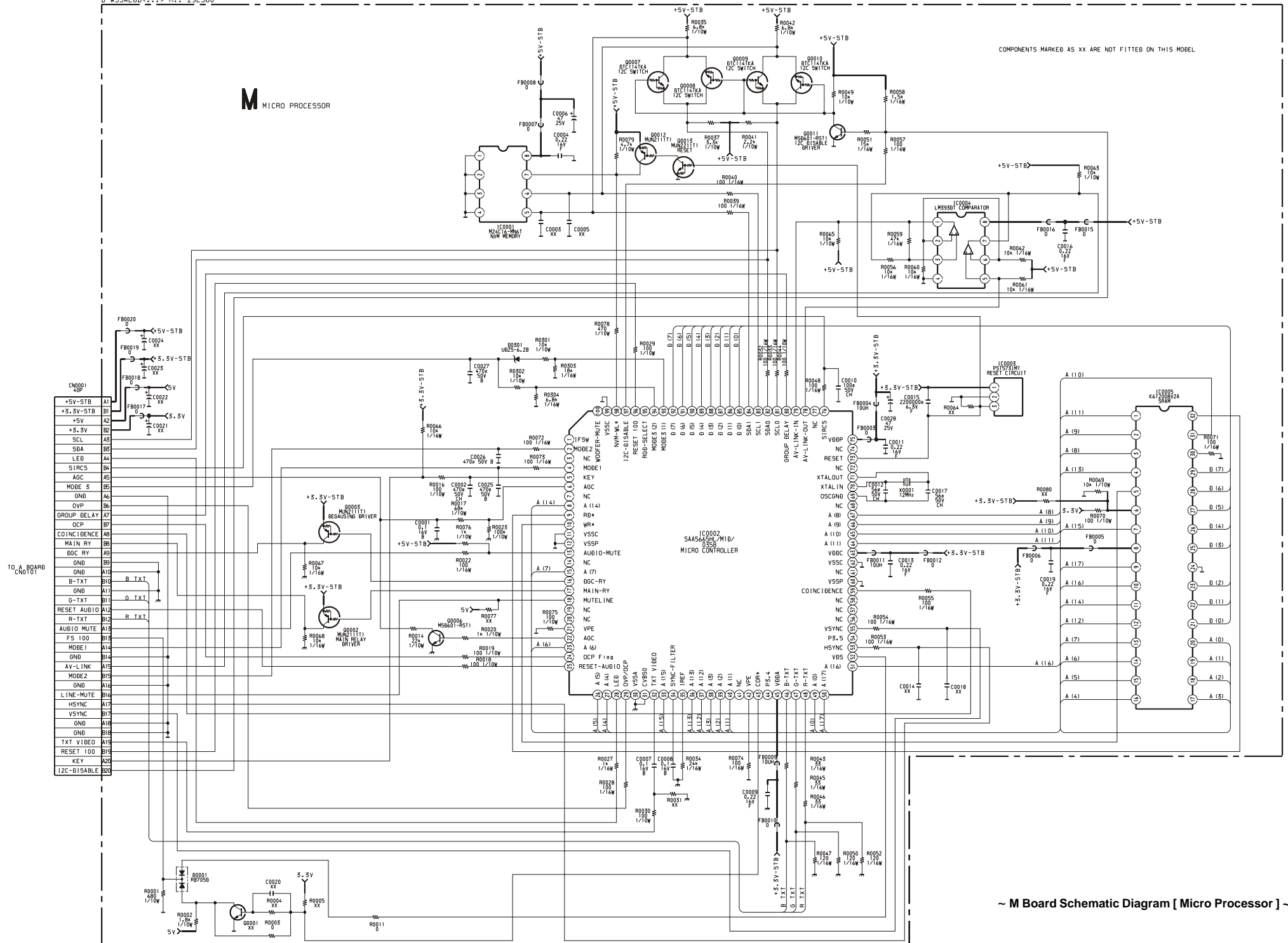
5-4. SEMICONDUCTORS

CXAB070AP
MCZ3001D

CXA1875AM-T4

(TOP VIEW)

CXA2100AQ-TL

(TOP VIEW)

K6T2008V2A-YF70T00
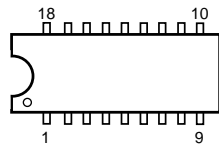
LA6500-FA

LM318P
LM358N
LM393DT
LM393N
M24C16-MN6T(A)
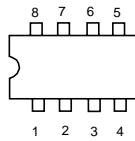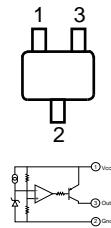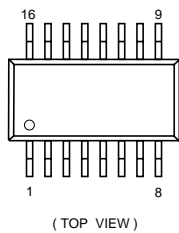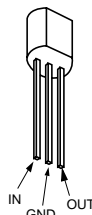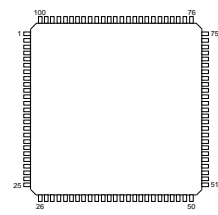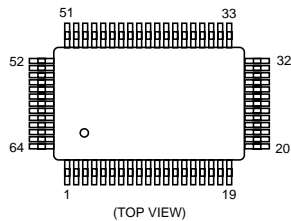
LM78L05ACZ

IN   OUT
GND

MSP3411G-QA-B10

(TOP VIEW)

NJM3404AD-W
UPC4558G2

(TOP VIEW)

PQ30RV11

1 : V IN
2 : V OUT
3 : GND
4 : ON/OFF CONTROL

PST573IMT

SAA5665HL/M1D/0358
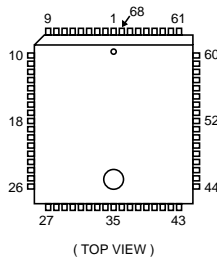
SBX3081-51(30)
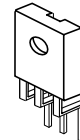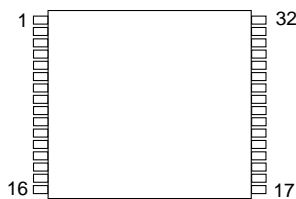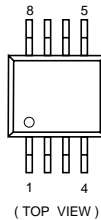
SDA9488X-B23GEG
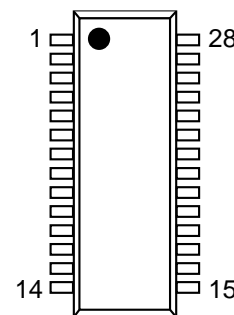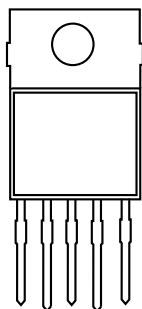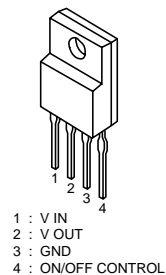
STV9379
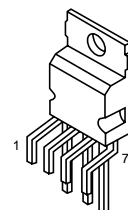
TCET1103G
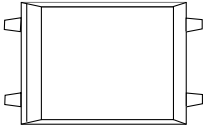
DTA144EK
DTC144TKA-T146
2SA1162-G

C

E

B

SE135N-LF4

1   V OUT SENSE
2   COLLECTOR
3   GND

TDA6111Q/N4

1   9
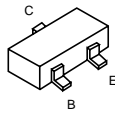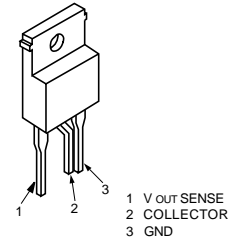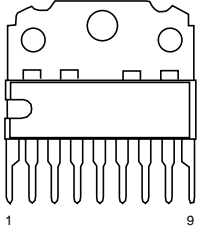
DTA144ESA
2SA933AS-QT
2SC2785-HFE

E   C   B

2SA1837(LBS2S0N)

B   C   E

TDA7497

1   15
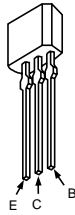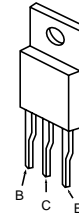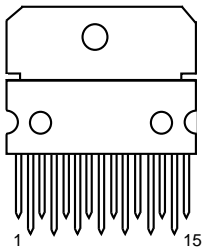
L7809CV/LSY
STP5NB40FP
STP5NB40(030Y)
2SC5698-CA
2S5696-SONY-CA
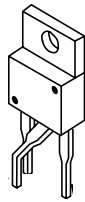
2SB734-34

VPS9402-A32GEG

80   61
1   60

20   41
21   40

(TOP VIEW)
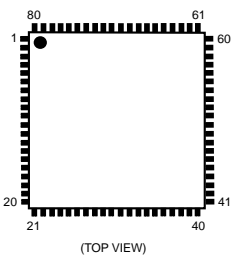
MSB709-RT1
MSD601-RST1
M1MA152WA-T1
UN2111
UN213
2SK2036(TE85L)

E

2SC2688(5)-LK

E   C   B
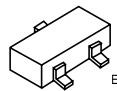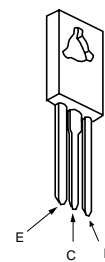
BA12T
BAO33T
IRF614-005
IRF620
SPA07N60C2
2SA2005
2SC5511

B   C   E

RB705D

3

2

1

2   3   1

BAS216

- 42 -
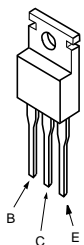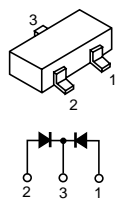
BAS316-115
MMDL914T1
UDZSTE-176.2B

ANODE

CATHODE
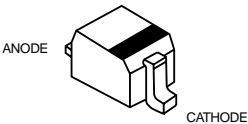
FBIU4D7MA-B
RBV-406B
S1VB40

+ ～ ～ −

+ ～ ～ −

BYV98-200-RAS 15/12

CATHODE

ANODE
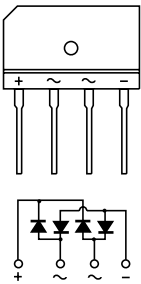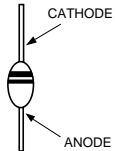
GS1B460/45
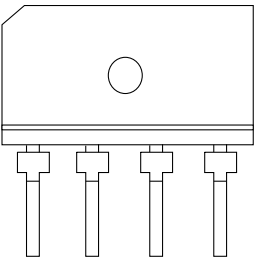
D1NL20U
EGP20G
EL1Z
GP08D
UF4005PKG23
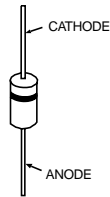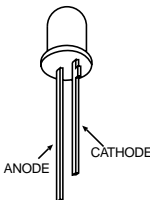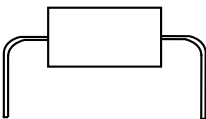
CATHODE

ANODE

TLHK5190

ANODE   CATHODE

D2S4MTA1

ERA38-06   MTZJ-T-77-22
ERA85-009   RD15ES-B2
HZS9.1NB2   RD39ES-B2
MTZJ-13B   RD5.6ESB2
MTZJ-33B   1SS119-25
MTZJ-3.6A   1SS133T-77
MTZJ-4.7C

CATHODE

ANODE
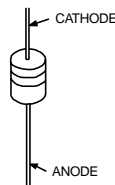
5-5 IC BLOCK DIAGRAMS

A BOARD IC6202/IC6207/IC6205 BA033T/BA12T
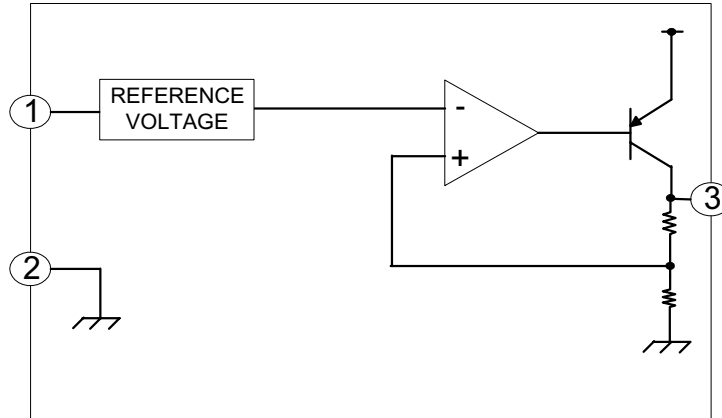
A BOARD IC2500 TDA7497
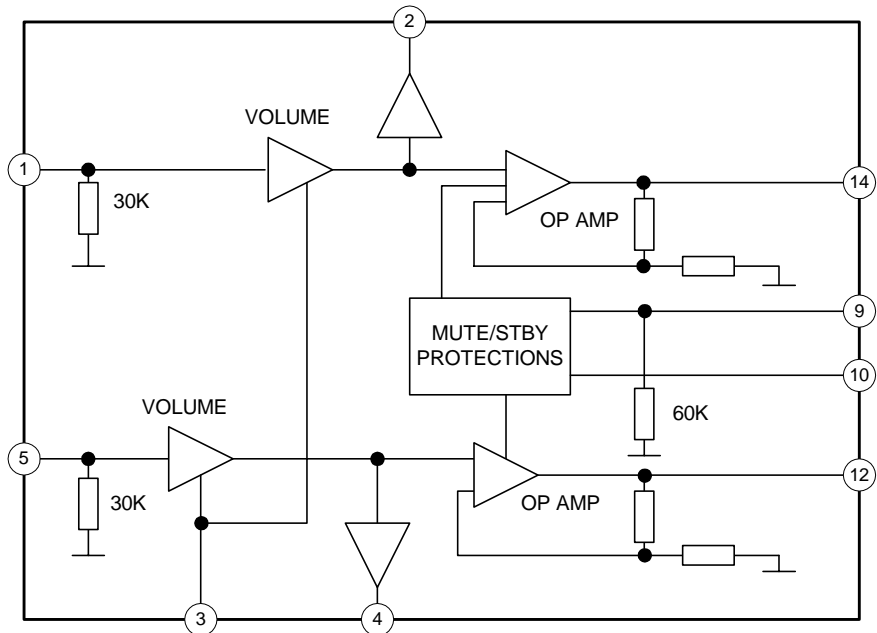
G BOARD IC6001 MCZ3001D
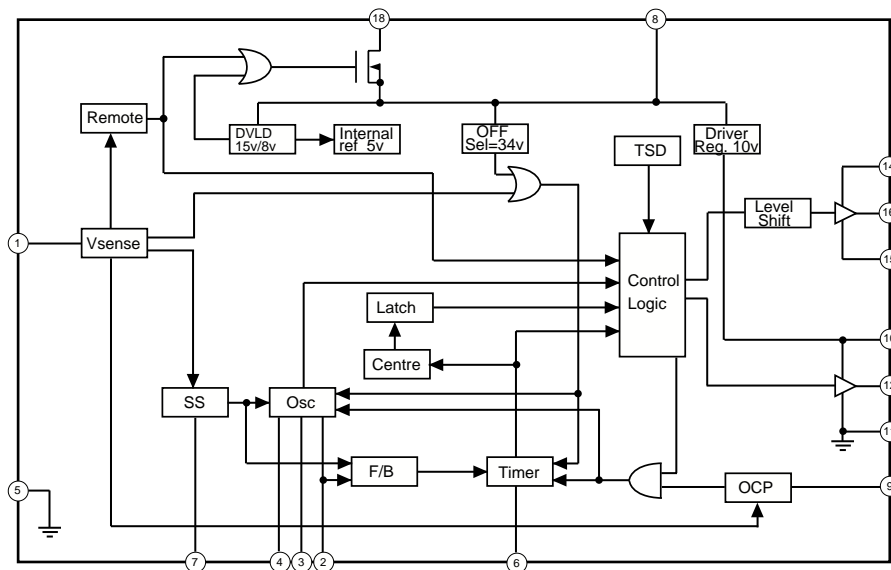
A BOARD IC2000 MSP3411G
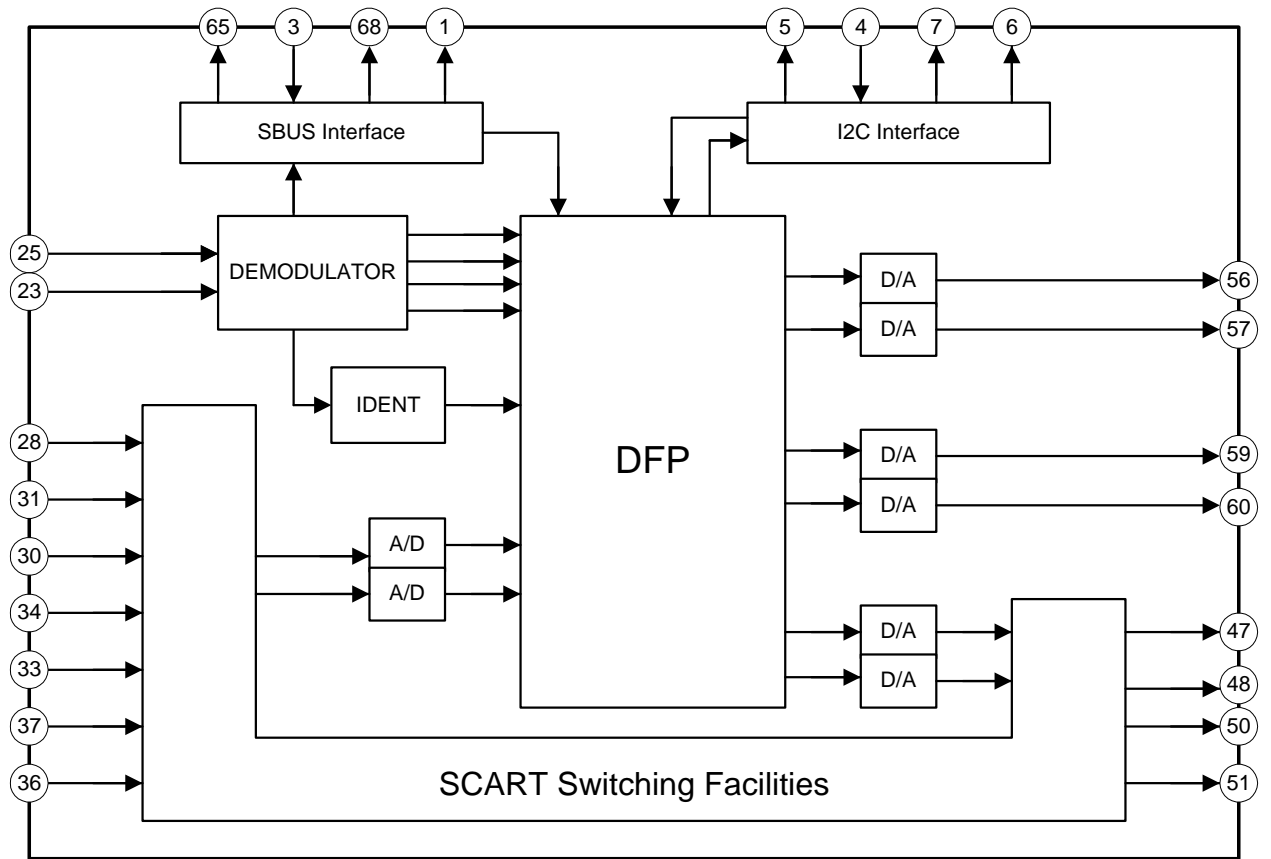
G BOARD IC6003 SE135N-LF4
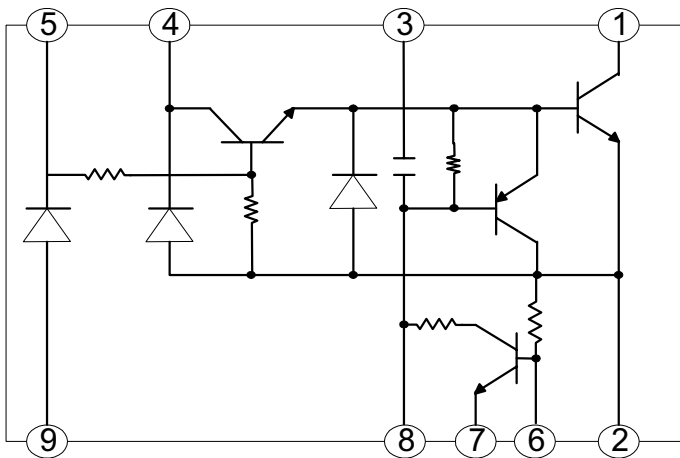
A BOARD IC5301/IC5302 LM393TD
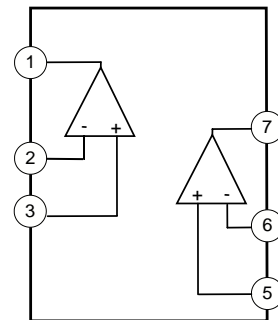
A BOARD IC5400 STV9379
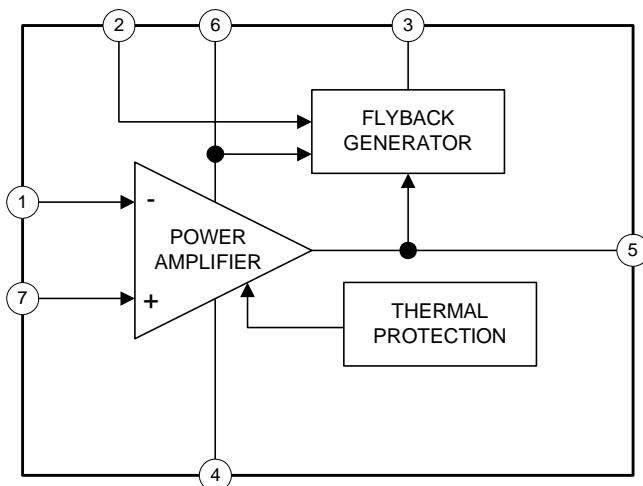
A BOARD IC5300 LM358N
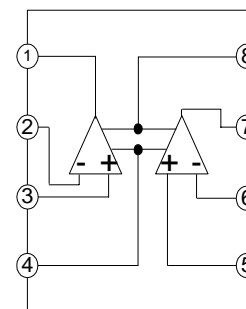
SECTION 6
EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note : Les composants indentifies par une trame et par une marque △ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked △ are critical for safety. Replace only with the part numbers specified in the parts list.

6-1. CHASSIS
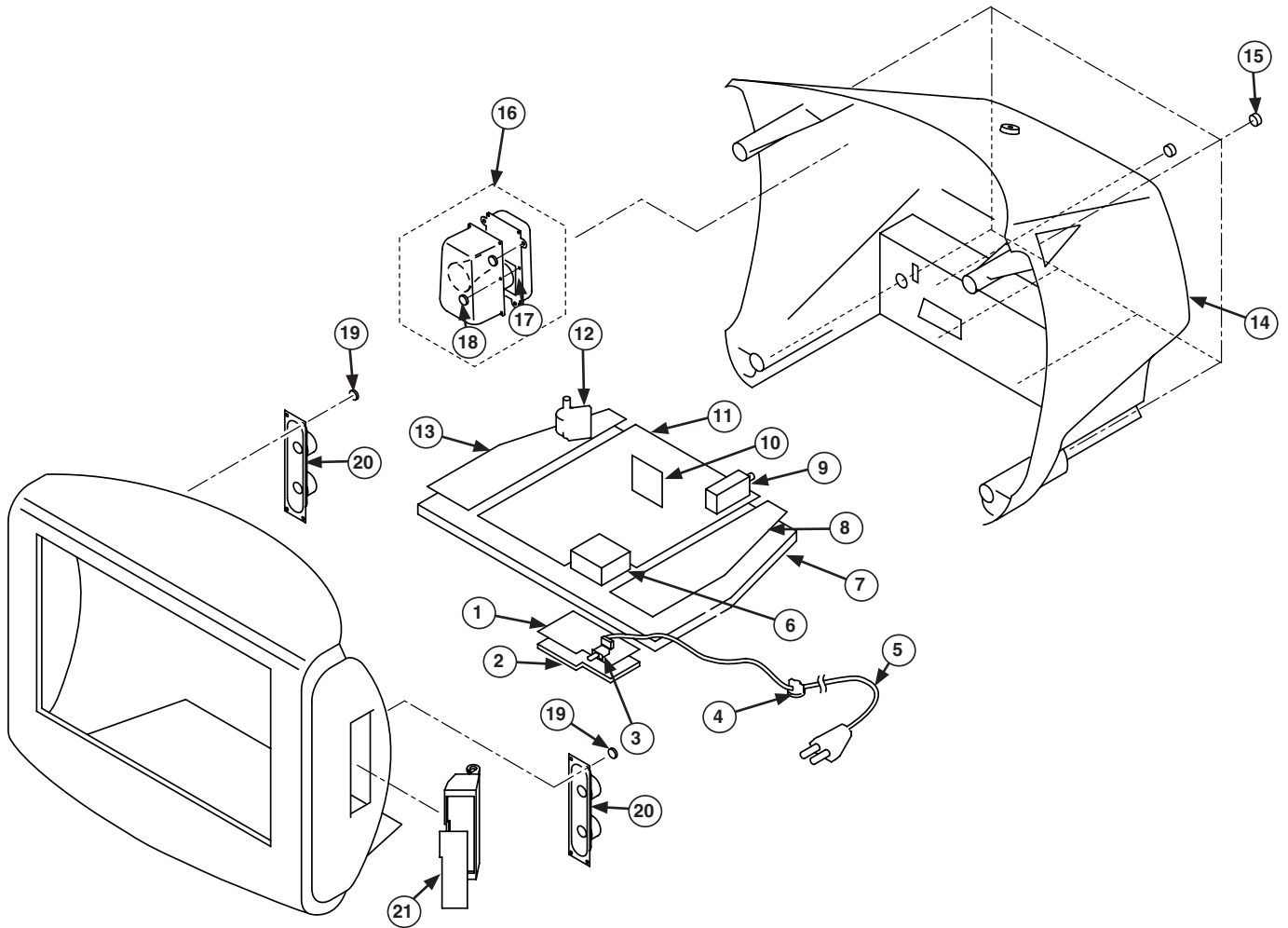
REF.NO.		PART.NO	DESCRIPTION	REMARK	REF.NO.		PART.NO	DESCRIPTION	REMARK
1		*A-1624-102-A	F2 BOARD, COMPLETE		11		*A-1632-954-A	A BOARD, COMPLETE (KV-29LS60B)	
2		*4-206-055-01	BRACKET, F2				*A-1632-955-A	A BOARD, COMPLETE (KV-29LS60E/29LS60K)	
3	△	1-571-433-21	SWITCH, PUSH (AC POWER)		12	△	1-453-340-31	TRANSFORMER ASSY, FLYBACK (NX-4522//Z2B4)	
4		*4-202-531-01	AC CORD LOCK (SC)		13		*A-1640-432-A	D BOARD, COMPLETE	
5	△	1-765-286-11	CORD, POWER		14		4-206-051-01	REAR COVER	
6		1-424-855-11	COIL, CHOKE		15		7-685-663-79	SCREW +BVTP 4x16 TYPE 2 IT-3	
7		*4-206-106-01	BRACKET, MAIN		16		*A-1678-205-A	WOOFER COMPLETE ASSY 17,18	
8		*A-1637-024-A	G BOARD, COMPLETE		17		1-529-989-11	SPEAKER (8CM)	
9		8-598-535-11	FRONTEND (BTF-EF411) (KV-29LS60B)		18		7-685-663-71	SCREW +BVTP 4x16 TYPE 2 IT-3	
		8-598-533-01	FRONTEND (BTF-EC411) (KV-29LS60E/29LS60K)		19		7-685-663-71	SCREW +BVTP 4x16 TYPE 2 IT-3	
10		*A-1634-062-A	M BOARD, COMPLETE		20		1-529-408-11	SPEAKER (4.2x24CM)	
					21		*A-1647-043-A	H2 BOARD, COMPLETE	

6-2. PICTURE TUBE

Note : Les composants indentifies par une trame et par une marque ⚠ sonte d'une importance critique pour la securite. Ne les remplacer que par des pieces du numero specifie.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.		PART.NO	DESCRIPTION	REMARK
51		X-4200-710-1	BEZNET ASSY	52-55
52		4-205-948-01	POWER BUTTON	
53		4-204-426-01	SPRING	
54		4-205-375-01	GUIDE, LIGHT	
55		4-204-666-01	SHEET, BLOTTING	
56		X-4200-712-1	DOOR ASSY	57
57		4-047-464-01	CATCHER, PUSH	
58	⚠	8-735-053-05	PICTURE TUBE (M68LNH060X)	
59		8-451-504-31	DEFLECTION YOKE (Y29RSC-S)	
60		1-452-896-11	COIL, NA ROTATION (RT200)	
61		*A-1644-119-A	VM BOARD, COMPLETE	
62		*A-1638-158-A	C BOARD, COMPLETE	
63		4-369-318-21	SPRING, TENSION	

REF.NO.		PART.NO	DESCRIPTION	REMARK
64	⚠	1-424-887-11	COIL, DEGAUSSING	
65		4-203-390-11	CUSHION, DGC	
66		*4-204-768-01	HOLDER, DGC (29")	
67		8-453-011-41	NECK ASSY, (NA299-C)	
68	⚠	1-251-946-11	CAP ASSY, HIGH-VOLTAGE	
69		3-704-495-01	SPACER, DY	
70		4-046-765-12	SCREW, TAPPING 7+ CROWN WASHER	
71		4-308-870-00	CLIP, LEAD WIRE	
72		1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
73		1-452-032-00	MAGNET, DISK; 10MM	
74		X-4387-214-1	PERMALLOY ASSY, CORRECTION	
75		3-701-007-00	BAND, BINDING	

SECTION 7
ELECTRICAL PARTS LIST

Note :   Refer to the designated variant parts list when seeking a part indicated by an asterisk (*)
    Parts indicated (XX) on the Schematic Diagram are not used in this model and
    therefore do not appear in the Parts List.

Note : The components identified by shading and marked ⚠ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
*A-1624-102-A F2 Board, Complete			
	4-203-258-01	HOLDER, LED	
	*4-374-846-01	COVER, CAPACITOR, CAP TYPE	
		< CAPACITOR >	
C0982	1-104-665-11	ELECT 100UF	20.00% 25V
C0983	1-102-114-00	CERAMIC 470PF	10.00% 50V
C0984	1-102-129-00	CERAMIC 0.01UF	10.00% 50V
C6981 ⚠	1-113-924-11	CERAMIC 0.0047UF	20.00% 250V
		< CONNECTOR >	
CN0981	*1-564-507-11	PLUG, CONNECTOR 4P	
CN6981	*1-580-844-11	PIN, CONNECTOR (POWER)	
CN6982	*1-695-292-11	PIN, CONNECTOR (POWER)	
CN6983	1-695-915-11	TAB (CONTACT)	
		< DIODE >	
D0981	8-719-109-89	DIODE RD5.6ESB2	
D0983	8-719-082-12	DIODE TLHK5190	
		< FUSE >	
F6981 ⚠	1-576-232-11	FUSE (H.B.C.) 5A/250V	
	*1-533-725-11	HOLDER, FUSE (F6981)	
		< IC >	
IC0981	8-742-180-30	HYB IC SBX3081-51(30)	
		< RESISTOR >	
R0982	1-247-807-31	CARBON 100 5% 1/4W	
R6981	1-202-719-00	SOLID 1M 10% 1/2W	
		< SWITCH >	
S6981 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
		< VARISTOR >	
VD6981	1-803-830-11	VARISTOR (ERZV14D621)	
*A-1632-954-A A Board, Complete (KV-29LS60B)			
*A-1632-955-A A Board, Complete (KV-29LS60E/			
KV-29LS60K)			
A Board Common Parts			
	4-382-854-01	SCREW (M3X8), P, SW (+)	
		< CAPACITOR >	
C1001	1-126-933-11	ELECT 100UF	20.00% 16V
C1002	1-126-964-11	ELECT 10UF	20.00% 50V
C1004	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V

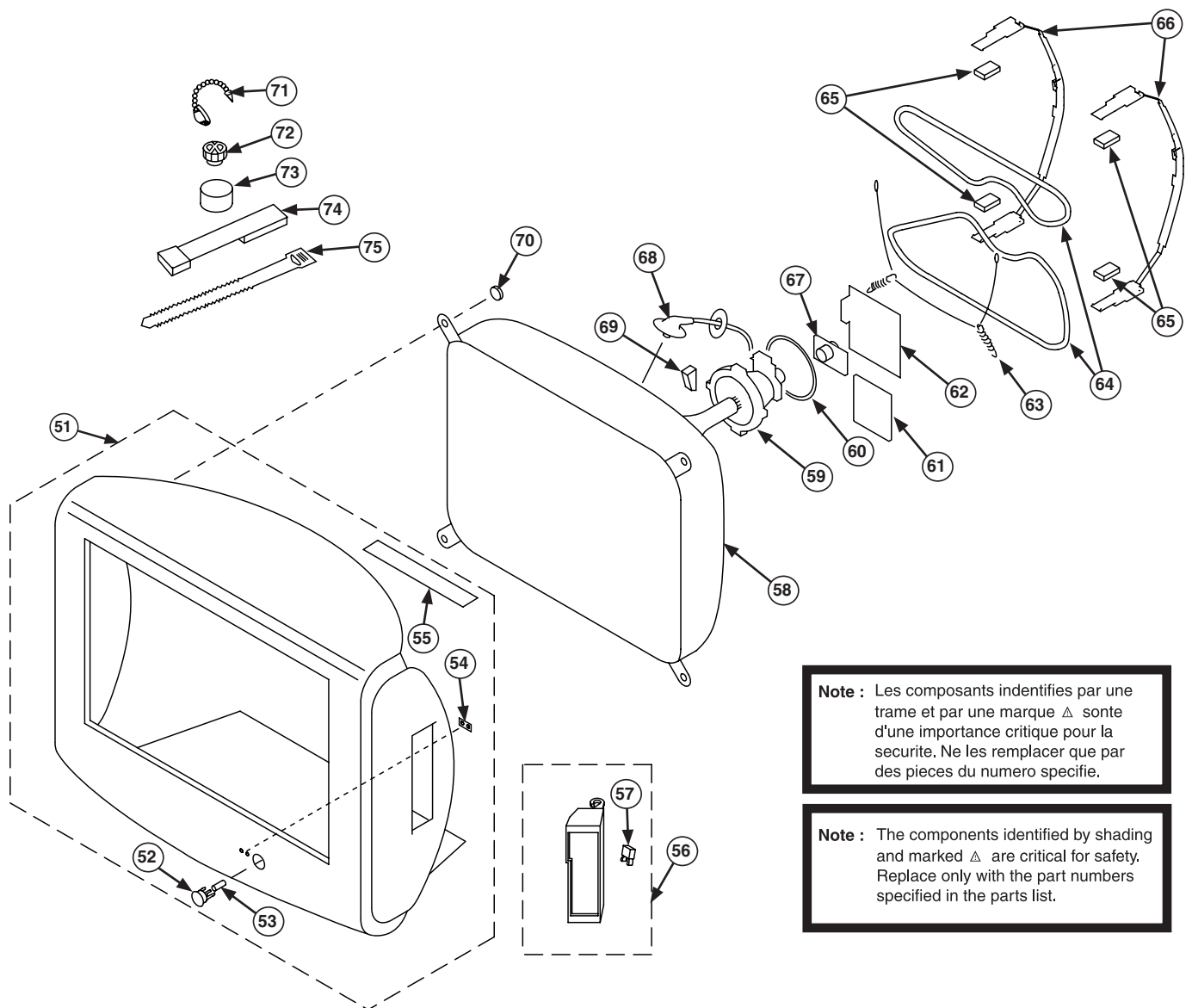| REF.NO.	PART.NO	DESCRIPTION	REMARK
C1006	1-126-933-11	ELECT 100UF	20.00% 16V
C1008	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1009	1-162-925-11	CERAMIC CHIP 68PF	5.00% 50V
C1010	1-162-925-11	CERAMIC CHIP 68PF	5.00% 50V
C1014	1-126-933-11	ELECT 100UF	20.00% 16V
C1015	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1018	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C1020	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C1021	1-162-968-11	CERAMIC CHIP 0.0047UF	10.00% 50V
C1022	1-216-295-91	SHORT 0	
C2000	1-162-968-11	CERAMIC CHIP 0.0047UF	10.00% 50V
C2001	1-162-968-11	CERAMIC CHIP 0.0047UF	10.00% 50V
C2006	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2007	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C2008	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2009	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C2010	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2011	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2013	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2014	1-164-346-11	CERAMIC CHIP 1UF	16V
C2015	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C2016	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2018	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2019	1-164-346-11	CERAMIC CHIP 1UF	16V
C2021	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2024	1-164-346-11	CERAMIC CHIP 1UF	16V
C2026	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2029	1-164-346-11	CERAMIC CHIP 1UF	16V
C2038	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C2039	1-162-906-91	CERAMIC CHIP 1.5PF	0.25PF 50V
C2040	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C2041	1-162-906-91	CERAMIC CHIP 1.5PF	0.25PF 50V
C2042	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C2043	1-162-962-11	CERAMIC CHIP 470PF	10.00% 50V
C2044	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C2046	1-162-923-11	CERAMIC CHIP 47PF	5.00% 50V
C2047	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V
C2048	1-126-947-11	ELECT 47UF	20.00% 25V
C2049	1-162-925-11	CERAMIC CHIP 68PF	5.00% 50V
C2050	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C2051	1-126-964-11	ELECT 10UF	20.00% 50V
C2052	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C2053	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
C2054	1-126-947-11	ELECT 47UF	20.00% 25V
C2055	1-162-968-11	CERAMIC CHIP 0.0047UF	10.00% 50V
C2057	1-126-964-11	ELECT 10UF	20.00% 50V
C2058	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C2059	1-126-964-11	ELECT 10UF	20.00% 50V
C2060	1-126-947-11	ELECT 47UF	20.00% 25V
C2061	1-162-968-11	CERAMIC CHIP 0.0047UF	10.00% 50V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C2062	1-164-346-11	CERAMIC CHIP 1UF	16V	C3214	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2063	1-164-346-11	CERAMIC CHIP 1UF	16V	C3215	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2064	1-126-964-11	ELECT 10UF	20.00% 50V	C3216	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2065	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V	C3217	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2066	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V	C3218	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2069	1-127-715-91	CERAMIC CHIP 0.22UF	10.00% 16V	C3219	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2073	1-126-960-91	ELECT 1UF	20.00% 50V	C3220	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2074	1-126-960-91	ELECT 1UF	20.00% 50V	C3221	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2075	1-126-960-91	ELECT 1UF	20.00% 50V	C3222	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2077	1-126-960-91	ELECT 1UF	20.00% 50V	C3223	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2078	1-126-963-11	ELECT 4.7UF	20.00% 50V	C3224	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2079	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C3225	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2080	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V	C3226	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2081	1-115-414-11	CERAMIC CHIP 820PF	5.00% 25V	C3227	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2082	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V	C3228	1-164-489-91	CERAMIC CHIP 0.22UF	10.00% 16V
C2083	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V	C3229	1-164-489-91	CERAMIC CHIP 0.22UF	10.00% 16V
C2090	1-126-947-11	ELECT 47UF	20.00% 25V	C3230	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C2091	1-126-947-11	ELECT 47UF	20.00% 25V	C3231	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C2092	1-126-947-11	ELECT 47UF	20.00% 25V	C3232	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C2093	1-126-947-11	ELECT 47UF	20.00% 25V	C3233	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C2096	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C3234	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C2500	1-126-952-11	ELECT 1000UF	20.00% 35V	C3235	1-165-176-91	CERAMIC CHIP 0.047UF	10.00% 16V
C2502	1-104-666-11	ELECT 220UF	20.00% 25V	C3236	1-165-176-91	CERAMIC CHIP 0.047UF	10.00% 16V
C2504	1-164-222-91	CERAMIC CHIP 0.22UF	25V	C3237	1-165-176-91	CERAMIC CHIP 0.047UF	10.00% 16V
C2505	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	C3238	1-165-176-91	CERAMIC CHIP 0.047UF	10.00% 16V
C2506	1-126-972-11	ELECT 1000UF	20.00% 50V	C3239	1-165-176-91	CERAMIC CHIP 0.047UF	10.00% 16V
C2507	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V	C3240	1-165-176-91	CERAMIC CHIP 0.047UF	10.00% 16V
C2508	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V	C3241	1-126-933-11	ELECT 100UF	20.00% 16V
C2509	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V	C3242	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V
C2510	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V	C3243	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2511	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C3250	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C2512	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C3300	1-163-251-91	CERAMIC CHIP 100PF	5.00% 50V
C2513	1-126-952-11	ELECT 1000UF	20.00% 35V	C3309	1-126-964-11	ELECT 10UF	20.00% 50V
C2515	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V	C3310	1-164-222-91	CERAMIC CHIP 0.22UF	25V
C2516	1-126-953-11	ELECT 2200UF	20.00% 35V	C3406	1-126-964-11	ELECT 10UF	20.00% 50V
C2517	1-126-960-11	ELECT 1UF	20.00% 50V	C5110	1-126-947-11	ELECT 47UF	20.00% 25V
C2518	1-126-960-11	ELECT 1UF	20.00% 50V	C5111	1-126-964-11	ELECT 10UF	20.00% 50V
C2519	1-126-959-11	ELECT 0.47UF	20.00% 50V	C5112	1-126-964-11	ELECT 10UF	20.00% 50V
C2521	1-164-346-11	CERAMIC CHIP 1UF	16V	C5114	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C2522	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C5115	1-126-964-11	ELECT 10UF	20.00% 50V
C2523	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	C5116	1-126-964-11	ELECT 10UF	20.00% 50V
C3200	1-126-964-11	ELECT 10UF	20.00% 50V	C5117	1-126-964-11	ELECT 10UF	20.00% 50V
C3202	1-126-964-11	ELECT 10UF	20.00% 50V	C5118	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3203	1-126-964-11	ELECT 10UF	20.00% 50V	C5119	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C3206	1-126-964-11	ELECT 10UF	20.00% 50V	C5120	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3208	1-163-235-91	CERAMIC CHIP 22PF	5.00% 50V	C5121	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C3209	1-163-235-91	CERAMIC CHIP 22PF	5.00% 50V	C5122	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3210	1-126-964-11	ELECT 10UF	20.00% 50V	C5123	1-126-964-11	ELECT 10UF	20.00% 50V
C3211	1-126-964-11	ELECT 10UF	20.00% 50V	C5124	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3213	1-164-222-91	CERAMIC CHIP 0.22UF	25V	C5125	1-126-964-11	ELECT 10UF	20.00% 50V

REF.NO.	PART.NO	DESCRIPTION		REMARK	REF.NO.	PART.NO	DESCRIPTION		REMARK
C5200	1-136-177-00	FILM	1UF	5.00% 50V	C5412	1-106-220-00	MYLAR	0.1UF	10.00% 100V
C5201	1-163-989-11	CERAMIC CHIP	0.033UF	10.00% 25V	C5413	1-130-785-11	MYLAR	0.47UF	10.00% 100V
C5202	1-126-947-11	ELECT	47UF	20.00% 25V	C5801	1-126-963-11	ELECT	4.7UF	20.00% 50V
C5203	1-136-177-00	FILM	1UF	5.00% 50V	C5850	1-126-963-11	ELECT	4.7UF	20.00% 50V
C5204	1-115-339-11	CERAMIC CHIP	0.1UF	10.00% 50V	C5851	1-107-826-11	CERAMIC CHIP	0.1UF	10.00% 16V
C5205	1-163-989-11	CERAMIC CHIP	0.033UF	10.00% 25V	C5853	1-162-970-11	CERAMIC CHIP	0.01UF	10.00% 25V
C5206	1-164-222-91	CERAMIC CHIP	0.22UF	25V	C5854	1-107-826-11	CERAMIC CHIP	0.1UF	10.00% 16V
C5207	1-126-947-11	ELECT	47UF	20.00% 25V	C5858	1-107-826-11	CERAMIC CHIP	0.1UF	10.00% 16V
C5209	1-163-127-00	CERAMIC CHIP	270PF	5.00% 50V	C5859	1-126-960-11	ELECT	1UF	20.00% 50V
C5210	1-164-336-11	CERAMIC CHIP	0.33UF	25V	C5860	1-165-176-11	CERAMIC CHIP	0.047UF	10.00% 16V
C5211	1-136-165-00	FILM	0.1UF	5.00% 50V	C5868	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C5212	1-164-222-91	CERAMIC CHIP	0.22UF	25V	C5872	1-164-346-11	CERAMIC CHIP	1UF	16V
C5213	1-126-947-11	ELECT	47UF	20.00% 25V	C5873	1-163-251-11	CERAMIC CHIP	100PF	5.00% 50V
C5214	1-126-964-11	ELECT	10UF	20.00% 50V	C5888	1-164-156-11	CERAMIC CHIP	0.1UF	25V
C5215	1-162-923-11	CERAMIC CHIP	47PF	5.00% 50V	C5889	1-126-964-11	ELECT	10UF	20.00% 50V
C5216	1-162-927-11	CERAMIC CHIP	100PF	5.00% 50V	C5890	1-164-227-11	CERAMIC CHIP	0.022UF	10.00% 25V
C5217	1-136-165-00	FILM	0.1UF	5.00% 50V	C5891	1-137-581-11	FILM	0.1UF	5.00% 100V
C5218	1-162-923-11	CERAMIC CHIP	47PF	5.00% 50V	C5892	1-107-826-11	CERAMIC CHIP	0.1UF	10.00% 16V
C5219	1-126-964-11	ELECT	10UF	20.00% 50V	C5893	1-126-947-11	ELECT	47UF	20.00% 25V
C5300	1-126-933-11	ELECT	100UF	20.00% 16V	C5894	1-126-947-11	ELECT	47UF	20.00% 25V
C5301	1-126-947-11	ELECT	47UF	20.00% 25V	C5895	1-164-156-11	CERAMIC CHIP	0.1UF	25V
C5302	1-164-222-91	CERAMIC CHIP	0.22UF	25V	C5896	1-165-176-11	CERAMIC CHIP	0.047UF	10.00% 16V
C5303	1-136-153-00	FILM	0.01UF	5.00% 50V	C5897	1-162-970-11	CERAMIC CHIP	0.01UF	10.00% 25V
C5304	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00% 50V	C5898	1-162-964-11	CERAMIC CHIP	0.001UF	10.00% 50V
C5305	1-165-176-11	CERAMIC CHIP	0.047UF	10.00% 16V	C5899	1-107-823-11	CERAMIC CHIP	0.47UF	10.00% 16V
C5306	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C6200	1-126-933-11	ELECT	100UF	20.00% 16V
C5307	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C6201	1-126-935-11	ELECT	470UF	20.00% 16V
C5309	1-162-927-11	CERAMIC CHIP	100PF	5.00% 50V	C6202	1-126-933-11	ELECT	100UF	20.00% 16V
C5310	1-136-165-00	FILM	0.1UF	5.00% 50V	C6203	1-126-935-11	ELECT	470UF	20.00% 10V
C5311	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C6204	1-126-933-11	ELECT	100UF	20.00% 16V
C5312	1-165-176-11	CERAMIC CHIP	0.047UF	10.00% 16V	C6205	1-126-935-11	ELECT	470UF	20.00% 10V
C5313	1-107-714-11	ELECT	10UF	20.00% 50V	C6206	1-126-933-11	ELECT	100UF	20.00% 16V
C5314	1-162-970-11	CERAMIC CHIP	0.01UF	10.00% 25V	C6207	1-126-933-11	ELECT	100UF	20.00% 16V
C5316	1-164-230-11	CERAMIC CHIP	220PF	5.00% 50V	C6208	1-126-933-11	ELECT	100UF	20.00% 16V
C5318	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C6209	1-126-933-11	ELECT	100UF	20.00% 16V
C5319	1-136-347-11	FILM	0.0047UF	5.00% 630V	C6210	1-126-935-11	ELECT	470UF	20.00% 16V
C5320	1-129-716-00	FILM	0.015UF	5.00% 630V	C6211	1-126-947-11	ELECT	47UF	20.00% 25V
C5321	1-136-347-11	FILM	0.0047UF	5.00% 630V	C6212	1-126-933-11	ELECT	100UF	20.00% 16V
C5322	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C6213	1-126-933-11	ELECT	100UF	20.00% 16V
C5323	1-136-159-00	FILM	0.033UF	5.00% 50V	C6214	1-126-933-11	ELECT	100UF	20.00% 16V
C5400	1-126-964-11	ELECT	10UF	20.00% 50V	C7002	1-126-947-11	ELECT	47UF	20.00% 25V
C5401	1-107-714-11	ELECT	10UF	20.00% 50V	C7004	1-164-222-91	CERAMIC CHIP	0.22UF	25V
C5403	1-128-527-11	ELECT	330UF	20.00% 25V	C7008	1-162-919-11	CERAMIC CHIP	22PF	5.00% 50V
C5404	1-102-228-00	CERAMIC	470PF	10.00% 500V	C7016	1-107-823-11	CERAMIC CHIP	0.47UF	10.00% 16V
C5405	1-163-021-91	CERAMIC CHIP	0.01UF	10.00% 50V	C7018	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C5406	1-129-702-00	MYLAR	0.001UF	10.00% 400V	C7019	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C5407	1-128-527-11	ELECT	330UF	20.00% 25V	C7020	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C5409	1-126-968-11	ELECT	100UF	20.00% 50V	C7021	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C5410	1-163-021-91	CERAMIC CHIP	0.01UF	10.00% 50V	C7022	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V
C5411	1-137-401-11	MYLAR	0.22UF	10.00% 100V	C7023	1-164-004-11	CERAMIC CHIP	0.1UF	10.00% 25V

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C7030	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V			< DIODE >	
C7031	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C7032	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D0101	8-719-923-84	DIODE MTZJ-T-77-13B	
C7038	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	D0104	8-719-109-89	DIODE RD5.6ESB2	
C7039	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00% 50V	D0110	8-719-109-89	DIODE RD5.6ESB2	
				D0111	8-719-929-15	DIODE HZS9.1NB2	
C7050	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V	D0112	8-719-923-84	DIODE MTZJ-T-77-13B	
C7051	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C7052	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D1006	8-719-109-89	DIODE RD5.6ESB2	
C7053	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D2014	8-719-929-15	DIODE HZS9.1NB2	
C7054	1-126-963-11	ELECT 4.7UF	20.00% 50V	D2015	8-719-929-15	DIODE HZS9.1NB2	
				D2016	8-719-050-38	DIODE M1MA152WK-T1	
C7055	1-164-222-91	CERAMIC CHIP 0.22UF	25V	D2018	8-719-929-15	DIODE HZS9.1NB2	
C7056	1-126-933-11	ELECT 100UF	20.00% 16V				
C7057	1-164-222-91	CERAMIC CHIP 0.22UF	25V	D2019	8-719-929-15	DIODE HZS9.1NB2	
C7058	1-126-933-11	ELECT 100UF	20.00% 16V	D2500	8-719-050-38	DIODE M1MA152WK-T1	
C7059	1-126-933-11	ELECT 100UF	20.00% 16V	D2502	8-719-109-89	DIODE RD5.6ESB2	
				D2503	8-719-050-38	DIODE M1MA152WK-T1	
C7060	1-164-222-91	CERAMIC CHIP 0.22UF	25V	D3001	8-719-929-15	DIODE HZS9.1NB2	
C7061	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V				
C7062	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D3003	8-719-929-15	DIODE HZS9.1NB2	
C7063	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D3005	8-719-929-15	DIODE HZS9.1NB2	
C7064	1-126-947-11	ELECT 47UF	20.00% 25V	D3007	8-719-109-89	DIODE RD5.6ESB2	
				D3008	8-719-109-89	DIODE RD5.6ESB2	
C7065	1-164-222-91	CERAMIC CHIP 0.22UF	25V	D3009	8-719-929-15	DIODE HZS9.1NB2	
C7067	1-126-947-11	ELECT 47UF	20.00% 25V				
C7068	1-164-222-91	CERAMIC CHIP 0.22UF	25V	D3011	8-719-929-15	DIODE HZS9.1NB2	
C7069	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V	D3013	8-719-929-15	DIODE HZS9.1NB2	
C7070	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V	D3015	8-719-929-15	DIODE HZS9.1NB2	
				D3017	8-719-109-89	DIODE RD5.6ESB2	
C7071	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V	D3018	8-719-109-89	DIODE RD5.6ESB2	
		< CONNECTOR >		D3019	8-719-929-15	DIODE HZS9.1NB2	
				D3026	8-719-929-15	DIODE HZS9.1NB2	
CN0101	1-823-330-11	CONNECTOR, BOARD TO BOARD 40P		D3028	8-719-929-15	DIODE HZS9.1NB2	
CN0102	*1-564-520-11	PLUG, CONNECTOR 5P		D3201	8-719-109-89	DIODE RD5.6ESB2	
CN0103	*1-564-507-11	PLUG, CONNECTOR 4P		D5103	8-719-110-88	DIODE RD39ES-B2	
CN1000	1-770-130-11	CONNECTOR (SQUARE TYPE) 21P					
CN1001	1-770-130-11	CONNECTOR (SQUARE TYPE) 21P		D5104	8-719-109-89	DIODE RD5.6ESB2	
				D5200	8-719-991-33	DIODE 1SS133T-77	
CN2000	*1-564-512-11	PLUG, CONNECTOR 9P		D5201	1-535-143-61	LEAD, JUMPER (5.0MM)	
CN2500	*1-564-506-11	PLUG, CONNECTOR 3P		D5202	8-719-050-38	DIODE M1MA152WK-T1	
CN2501	*1-564-507-11	PLUG, CONNECTOR 4P		D5300	8-719-081-97	DIODE MMDL914T1	
CN2502	*1-564-509-11	PLUG, CONNECTOR 6P					
CN5002	*1-564-510-11	PLUG, CONNECTOR 7P		D5303	8-719-081-97	DIODE MMDL914T1	
				D5304	8-719-081-97	DIODE MMDL914T1	
CN5100	*1-564-506-11	PLUG, CONNECTOR 3P		D5305	8-719-991-33	DIODE 1SS133T-77	
CN5200	*1-564-506-11	PLUG, CONNECTOR 3P		D5306	8-719-302-43	DIODE EL1Z	
CN5801	*1-764-333-11	PLUG, CONNECTOR 10P		D5307	8-719-987-87	DIODE ERA85-009	
CN6200	*1-564-507-11	PLUG, CONNECTOR 4P					
CN6202	*1-564-516-11	PLUG, CONNECTOR 13P		D5308	8-719-081-97	DIODE MMDL914T1	
				D5309	8-719-081-97	DIODE MMDL914T1	
CN6203	1-695-915-11	TAB (CONTACT)		D5400	8-719-982-03	DIODE MTZJ-3.6A	
CN7000	*1-564-508-11	PLUG, CONNECTOR 5P		D5401	8-719-050-38	DIODE M1MA152WK-T1	
CN7001	*1-564-512-11	PLUG, CONNECTOR 9P		D5404	8-719-110-41	DIODE RD15ES-B2	
CN8001	1-766-281-11	PIN, CONNECTOR (PC BOARD) 8P					
				D5405	8-719-908-03	DIODE GP08D	
				D5807	8-719-929-15	DIODE HZS9.1NB2	
				D5809	8-719-050-38	DIODE M1MA152WK-T1	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
D5811	8-719-081-97	DIODE MMDL914T1		L2013	1-414-928-21	INDUCTOR 1UH	
D5812	8-719-081-97	DIODE MMDL914T1		L2014	1-408-602-31	INDUCTOR 8.2UH	
D6200	8-719-063-70	DIODE D1NL20U		L2500	1-535-143-61	LEAD, JUMPER (5.0MM)	
D7004	8-719-929-15	DIODE HZS9.1NB2		L2501	1-535-143-61	LEAD, JUMPER (5.0MM)	
				L3000	1-216-295-91	SHORT 0	
	< FERRITE BEAD >						
				L3004	1-216-295-91	SHORT 0	
FB3001	1-414-760-21	FERRITE 0UH		L3005	1-216-295-91	SHORT 0	
				L3006	1-216-295-91	SHORT 0	
	< FILTER >			L3007	1-216-295-91	SHORT 0	
				L3008	1-216-295-91	SHORT 0	
FL2000	1-239-803-11	FILTER, EMI					
				L3009	1-216-295-91	SHORT 0	
	< IC >			L3010	1-216-295-91	SHORT 0	
				L3011	1-216-295-91	SHORT 0	
IC2000	6-701-031-01	IC MSP3411G-QA-B10		L3012	1-216-295-91	SHORT 0	
IC2001	8-759-100-96	IC UPC4558G2		L3200	1-412-006-31	INDUCTOR 10UH	
IC2500	8-759-831-56	IC TDA7497					
IC3200	6-700-505-01	IC VPS9402-A32GEG		L3202	1-412-006-31	INDUCTOR 10UH	
IC5103	8-752-072-94	IC CXA1875AM-T4		L3203	1-412-006-31	INDUCTOR 10UH	
				L3206	1-412-006-31	INDUCTOR 10UH	
IC5104	8-759-803-42	IC LA6500-FA		L3208	1-412-006-31	INDUCTOR 10UH	
IC5200	8-759-595-52	IC CXA8070AP		L3300	1-412-006-31	INDUCTOR 10UH	
IC5201	8-759-903-16	IC LM318P					
IC5300	8-759-008-70	IC LM358N		L5300	1-406-989-21	INDUCTOR 10MH	
IC5301	8-759-450-95	IC LM393N		L5301	1-406-989-21	INDUCTOR 10MH	
				L5400	1-412-524-11	INDUCTOR 8.2UH	
IC5302	8-759-450-95	IC LM393N		L5898	1-414-934-21	INDUCTOR 10UH	
IC5400	8-759-192-71	IC STV9379		L5899	1-414-934-21	INDUCTOR 10UH	
IC6200	8-759-648-19	IC L7809CV/LSY					
IC6201	8-759-648-20	IC L7805CV/LSY		L7001	1-414-934-21	INDUCTOR 10UH	
IC6202	8-759-445-59	IC BA033T		L7009	1-414-934-21	INDUCTOR 10UH	
				L7010	1-414-934-21	INDUCTOR 10UH	
IC6203	8-759-098-24	IC PQ30RV11		L7011	1-414-934-21	INDUCTOR 10UH	
IC6205	8-759-394-35	IC BA12T		L7012	1-414-934-21	INDUCTOR 10UH	
IC6206	8-759-991-41	IC LM78L05ACZ					
IC6207	8-759-445-59	IC BA033T			< TRANSISTOR >		
IC7002	8-752-090-88	IC CXA2100AQ-TL					
				Q1000	8-729-010-05	TRANSISTOR MSB709-RT1	
	< JACK >			Q1001	8-729-010-29	TRANSISTOR MSD601-RST1	
				Q1004	8-729-010-05	TRANSISTOR MSB709-RT1	
J2000	1-784-632-11	JACK, PIN 2P		Q1005	8-729-421-19	TRANSISTOR UN2213	
				Q1006	8-729-010-05	TRANSISTOR MSB709-RT1	
	< COIL >						
				Q2000	8-729-010-29	TRANSISTOR MSD601-RST1	
L1000	1-412-987-41	INDUCTOR 4.7UH		Q2001	8-729-010-29	TRANSISTOR MSD601-RST1	
L1001	1-412-987-41	INDUCTOR 4.7UH		Q2002	8-729-010-29	TRANSISTOR MSD601-RST1	
L1002	1-414-934-21	INDUCTOR 10UH		Q2003	8-729-010-29	TRANSISTOR MSD601-RST1	
L1003	1-414-934-21	INDUCTOR 10UH		Q2501	8-729-010-29	TRANSISTOR MSD601-RST1	
L1005	1-414-934-21	INDUCTOR 10UH					
				Q2502	8-729-010-29	TRANSISTOR MSD601-RST1	
L2000	1-414-934-21	INDUCTOR 10UH		Q2503	8-729-010-29	TRANSISTOR MSD601-RST1	
L2001	1-414-934-21	INDUCTOR 10UH		Q3201	8-729-010-29	TRANSISTOR MSD601-RST1	
L2007	1-408-602-31	INDUCTOR 8.2UH		Q3204	8-729-010-05	TRANSISTOR MSB709-RT1	
L2008	1-216-295-91	SHORT 0		Q3300	8-729-010-29	TRANSISTOR MSD601-RST1	
L2009	1-216-295-91	SHORT 0					
				Q3301	8-729-010-05	TRANSISTOR MSB709-RT1	
L2010	1-414-928-21	INDUCTOR 1UH		Q3302	8-729-010-05	TRANSISTOR MSB709-RT1	
L2012	1-414-934-21	INDUCTOR 10UH		Q3500	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	

REF.NO.	PART.NO	DESCRIPTION			REMARK	REF.NO.	PART.NO	DESCRIPTION			REMARK
R2081	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3026	1-216-022-00	RES-CHIP	75	5%	1/10W
R2082	1-216-031-91	RES-CHIP	180	5%	1/10W	R3027	1-216-025-11	RES-CHIP	100	5%	1/10W
R2083	1-216-817-11	RES-CHIP	470	5%	1/16W	R3028	1-216-022-00	RES-CHIP	75	5%	1/10W
R2090	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R3034	1-216-022-00	RES-CHIP	75	5%	1/10W
R2091	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R3035	1-216-025-11	RES-CHIP	100	5%	1/10W
R2092	1-216-039-00	RES-CHIP	390	5%	1/10W	R3036	1-216-022-00	RES-CHIP	75	5%	1/10W
R2093	1-216-039-00	RES-CHIP	390	5%	1/10W	R3037	1-216-045-00	RES-CHIP	680	5%	1/10W
R2094	1-216-039-00	RES-CHIP	390	5%	1/10W	R3218	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2095	1-216-039-00	RES-CHIP	390	5%	1/10W	R3220	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2098	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3222	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2099	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3225	1-216-025-11	RES-CHIP	100	5%	1/10W
R2500	1-216-073-91	RES-CHIP	10K	5%	1/10W	R3226	1-216-025-11	RES-CHIP	100	5%	1/10W
R2502	1-208-810-11	METAL CHIP	15K	0.5%	1/10W	R3229	1-216-025-91	RES-CHIP	100	5%	1/10W
R2503	1-208-810-11	METAL CHIP	15K	0.5%	1/10W	R3233	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2504	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3236	1-216-822-11	RES-CHIP	1.2K	5%	1/16W
R2507	1-216-837-11	RES-CHIP	22K	5%	1/16W	R3238	1-216-797-11	RES-CHIP	10	5%	1/16W
R2509	1-249-417-11	CARBON	1K	5%	1/4W	R3305	1-216-025-11	RES-CHIP	100	5%	1/10W
R2511	1-216-073-91	RES-CHIP	10K	5%	1/10W	R3306	1-216-025-11	RES-CHIP	100	5%	1/10W
R2515	1-216-073-91	RES-CHIP	10K	5%	1/10W	R3312	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2516	1-216-089-91	RES-CHIP	47K	5%	1/10W	R3313	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2517	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3318	1-216-025-11	RES-CHIP	100	5%	1/10W
R2518	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3319	1-216-025-11	RES-CHIP	100	5%	1/10W
R2519	1-216-857-11	RES-CHIP	1M	5%	1/16W	R3320	1-216-025-11	RES-CHIP	100	5%	1/10W
R2520	1-216-025-11	RES-CHIP	100	5%	1/10W	R3321	1-216-864-11	SHORT	0		
R2912	1-216-295-91	SHORT	0			R3322	1-216-864-11	SHORT	0		
R2914	1-216-853-11	RES-CHIP	470K	5%	1/16W	R3323	1-216-813-11	RES-CHIP	220	5%	1/16W
R2921	1-216-295-91	SHORT	0			R3500	1-216-834-91	RES-CHIP	12K	5%	1/16W
R2924	1-216-295-91	SHORT	0			R3501	1-216-834-91	RES-CHIP	12K	5%	1/16W
R2927	1-216-295-91	SHORT	0			R3504	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2930	1-216-295-91	SHORT	0			R3505	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2933	1-216-295-91	SHORT	0			R3600	1-216-295-91	SHORT	0		
R3000	1-216-025-11	RES-CHIP	100	5%	1/10W	R3601	1-216-295-91	SHORT	0		
R3001	1-216-022-00	RES-CHIP	75	5%	1/10W	R3602	1-216-295-91	SHORT	0		
R3009	1-216-025-11	RES-CHIP	100	5%	1/10W	R5118	1-249-413-11	CARBON	470	5%	1/4W
R3010	1-216-022-00	RES-CHIP	75	5%	1/10W	R5119	1-216-840-11	RES-CHIP	39K	5%	1/16W
R3011	1-216-025-11	RES-CHIP	100	5%	1/10W	R5122	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3012	1-216-022-00	RES-CHIP	75	5%	1/10W	R5125	1-216-836-11	RES-CHIP	18K	5%	1/16W
R3013	1-216-025-11	RES-CHIP	100	5%	1/10W	R5126	1-249-413-11	CARBON	470	5%	1/4W
R3014	1-216-022-00	RES-CHIP	75	5%	1/10W	R5128	1-216-809-11	RES-CHIP	100	5%	1/16W
R3015	1-216-022-00	RES-CHIP	75	5%	1/10W	R5129	1-216-809-11	RES-CHIP	100	5%	1/16W
R3016	1-216-025-11	RES-CHIP	100	5%	1/10W	R5130	1-216-809-11	RES-CHIP	100	5%	1/16W
R3017	1-216-022-00	RES-CHIP	75	5%	1/10W	R5131	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3018	1-216-025-11	RES-CHIP	100	5%	1/10W	R5132	1-216-809-11	RES-CHIP	100	5%	1/16W
R3019	1-216-022-00	RES-CHIP	75	5%	1/10W	R5133	1-216-809-11	RES-CHIP	100	5%	1/16W
R3020	1-216-025-11	RES-CHIP	100	5%	1/10W	R5137	1-216-809-11	RES-CHIP	100	5%	1/16W
R3021	1-216-022-00	RES-CHIP	75	5%	1/10W	R5138	1-216-809-11	RES-CHIP	100	5%	1/16W
R3022	1-216-025-11	RES-CHIP	100	5%	1/10W	R5139	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3023	1-216-022-00	RES-CHIP	75	5%	1/10W	R5140	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3024	1-216-025-11	RES-CHIP	100	5%	1/10W	R5141	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3025	1-216-022-00	RES-CHIP	75	5%	1/10W	R5143	1-216-833-11	RES-CHIP	10K	5%	1/16W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R5144	1-216-821-11	RES-CHIP	1K	5%	1/16W
R5145	1-216-809-11	RES-CHIP	100	5%	1/16W
R5147	1-216-809-11	RES-CHIP	100	5%	1/16W
R5150	1-249-414-11	CARBON	560	5%	1/4W
R5151	1-249-454-11	CARBON	3.9	5%	1/4W
R5152	1-249-413-11	CARBON	470	5%	1/4W
R5153	1-249-393-11	CARBON	10	5%	1/4W
R5154	1-216-833-91	RES-CHIP	10K	5%	1/16W
R5155	1-249-421-11	CARBON	2.2K	5%	1/4W
R5156	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5157	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5201	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R5203	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R5204	1-216-809-11	RES-CHIP	100	5%	1/16W
R5206	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R5207	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5208	1-212-849-00	FUSIBLE	4.7	5%	1/4W
R5209	1-216-809-11	RES-CHIP	100	5%	1/16W
R5210	1-216-845-11	RES-CHIP	100K	5%	1/16W
R5211	1-216-845-11	RES-CHIP	100K	5%	1/16W
R5214	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R5215	1-216-025-11	RES-CHIP	100	5%	1/10W
R5217	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R5218	1-260-321-51	CARBON	270	5%	1/2W
R5219	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R5220	1-215-886-11	METAL OXIDE	100	5%	2W
R5222	1-216-678-11	METAL CHIP	13K	0.5%	1/10W
R5223	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R5225	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5226	1-212-849-00	FUSIBLE	4.7	5%	1/4W
R5227	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5228	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5229	1-216-837-11	RES-CHIP	22K	5%	1/16W
R5230	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R5231	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5232	1-216-845-11	RES-CHIP	100K	5%	1/16W
R5233	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5234	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5235	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5237	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5238	1-216-393-00	METAL OXIDE	2.2	5%	3W
R5239	1-208-848-11	METAL CHIP	560K	0.5%	1/10W
R5241	1-216-841-11	RES-CHIP	47K	5%	1/16W
R5300	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5301	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5302	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5303	1-208-816-11	METAL CHIP	27K	0.5%	1/10W
R5304	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5305	*1-208-852-11	METAL CHIP	820K	0.5%	1/10W
R5306	1-208-803-11	METAL CHIP	7.5K	0.5%	1/10W
R5307	1-216-041-00	RES-CHIP	470	5%	1/10W
R5308	1-216-295-91	SHORT	0		
R5309	1-208-824-91	RES-CHIP	56K	0.5%	1/10W
R5310	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R5311	1-216-045-00	RES-CHIP	680	5%	1/10W
R5312	1-208-832-11	METAL CHIP	120K	0.5%	1/10W
R5314	1-208-840-11	METAL CHIP	270K	0.5%	1/10W
R5315	1-216-043-91	RES-CHIP	560	5%	1/10W
R5316	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5317	1-216-845-11	RES-CHIP	100K	5%	1/16W
R5318	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5319	1-208-840-11	METAL CHIP	270K	0.5%	1/10W
R5320	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5321	1-216-837-11	RES-CHIP	22K	5%	1/16W
R5322	1-216-820-11	RES-CHIP	820	5%	1/16W
R5324	1-208-810-11	METAL CHIP	15K	0.5%	1/10W
R5325	1-208-812-11	METAL CHIP	18K	0.5%	1/10W
R5326	1-216-845-11	RES-CHIP	100K	5%	1/16W
R5327	1-216-472-00	METAL OXIDE	39	5%	3W
R5328	1-216-033-00	RES-CHIP	220	5%	1/10W
R5331	1-216-033-00	RES-CHIP	220	5%	1/10W
R5332	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5333	1-208-820-91	RES-CHIP	39K	0.5%	1/10W
R5334	1-208-834-91	RES-CHIP	150K	0.5%	1/10W
R5335	1-208-818-11	METAL CHIP	33K	0.5%	1/10W
R5336	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5337	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R5338	1-247-823-91	CARBON	470	5%	1/4W
R5340	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5341	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5342	1-208-818-11	METAL CHIP	33K	0.5%	1/10W
R5343	1-208-808-11	METAL CHIP	12K	0.5%	1/10W
R5344	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R5345	1-208-832-11	METAL CHIP	120K	0.5%	1/10W
R5346	1-216-849-11	RES-CHIP	220K	5%	1/16W
R5400	1-216-849-11	RES-CHIP	220K	5%	1/16W
R5401	1-216-837-11	RES-CHIP	22K	5%	1/16W
R5402	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5403	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5404	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5405	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5407	1-216-857-11	RES-CHIP	1M	5%	1/16W
R5408	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R5409	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R5410	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R5411	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R5413	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R5414	1-249-383-11	CARBON	1.5	5%	1/4W
R5415	1-249-389-11	CARBON	4.7	5%	1/4W
R5416	1-215-888-00	METAL OXIDE	220	5%	2W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R5417	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R5420	1-214-798-21	METAL	1.8	1%	1/2W
R5421	1-214-798-21	METAL	1.8	1%	1/2W
R5803	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R5804	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5805	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5806	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5807	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5808	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5809	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5865	1-216-841-11	RES-CHIP	47K	5%	1/16W
R5869	1-216-817-11	RES-CHIP	470	5%	1/16W
R5871	1-216-850-11	RES-CHIP	270K	5%	1/16W
R5875	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R5877	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R5878	1-216-295-91	SHORT	0		
R5879	1-216-809-11	RES-CHIP	100	5%	1/16W
R5880	1-216-809-11	RES-CHIP	100	5%	1/16W
R5881	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5882	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5883	1-216-857-91	RES-CHIP	1M	5%	1/16W
R5884	1-216-841-11	RES-CHIP	47K	5%	1/16W
R5885	1-216-809-11	RES-CHIP	100	5%	1/16W
R5887	1-216-809-11	RES-CHIP	100	5%	1/16W
R5888	1-216-809-11	RES-CHIP	100	5%	1/16W
R5889	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R5892	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5895	1-216-833-11	RES-CHIP	10K	5%	1/16W
R5898	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R5899	1-216-863-11	RES-CHIP	3.3M	5%	1/16W
R6200	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R6201	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R7007	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7018	1-216-025-11	RES-CHIP	100	5%	1/10W
R7023	1-216-834-11	RES-CHIP	12K	5%	1/16W
R7034	1-216-025-11	RES-CHIP	100	5%	1/10W
R7035	1-216-025-11	RES-CHIP	100	5%	1/10W
R7048	1-216-025-11	RES-CHIP	100	5%	1/10W
R7050	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7051	1-216-025-11	RES-CHIP	100	5%	1/10W
R7052	1-216-025-11	RES-CHIP	100	5%	1/10W
R7053	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7054	1-216-847-11	RES-CHIP	150K	5%	1/16W
R7056	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R7057	1-216-842-11	RES-CHIP	56K	5%	1/16W
R7058	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7065	1-216-821-11	RES-CHIP	1K	5%	1/16W
R7066	1-216-809-11	RES-CHIP	100	5%	1/16W
R7068	1-216-681-91	METAL CHIP	18K	0.5%	1/10W
R7070	1-216-817-11	RES-CHIP	470	5%	1/16W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R7071	1-216-817-11	RES-CHIP	470	5%	1/16W
R7072	1-216-817-11	RES-CHIP	470	5%	1/16W
R7073	1-216-041-00	RES-CHIP	470	5%	1/10W
R7074	1-216-043-91	RES-CHIP	560	5%	1/10W
R7075	1-216-817-11	RES-CHIP	470	5%	1/16W
R7076	1-216-041-00	RES-CHIP	470	5%	1/10W
R7077	1-216-043-91	RES-CHIP	560	5%	1/10W
R7078	1-216-817-11	RES-CHIP	470	5%	1/16W
R7079	1-216-041-00	RES-CHIP	470	5%	1/10W
R7080	1-216-043-91	RES-CHIP	560	5%	1/10W
R7081	1-216-817-11	RES-CHIP	470	5%	1/16W
R7082	1-216-821-11	RES-CHIP	1K	5%	1/16W
R7087	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7088	1-216-821-91	RES-CHIP	1K	5%	1/16W
R7089	1-216-819-11	RES-CHIP	680	5%	1/16W
R7090	1-216-819-11	RES-CHIP	680	5%	1/16W
R7091	1-216-819-11	RES-CHIP	680	5%	1/16W
R7092	1-216-295-91	SHORT	0		
R7093	1-216-295-91	SHORT	0		
R7094	1-216-295-91	SHORT	0		
R7095	1-216-295-91	SHORT	0		
R7096	1-216-803-11	RES-CHIP	33	5%	1/16W
R7097	1-216-803-11	RES-CHIP	33	5%	1/16W
R7098	1-216-803-11	RES-CHIP	33	5%	1/16W

< VARIABLE RESISTOR >

REF.NO.	PART.NO	DESCRIPTION
RV5101	1-238-600-11	RES, ADJ, CARBON 10.0K

< CRYSTAL >

REF.NO.	PART.NO	DESCRIPTION
X2000	1-760-628-11	VIBRATOR, CRYSTAL
X3200	1-781-946-21	VIBRATOR, CRYSTAL
X5800	1-767-127-11	VIBRATOR, CERAMIC

A Board Variant Parts KV-29LS60B

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION		
C1011	1-163-253-11	CERAMIC CHIP 120PF	5.00%	50V
C1012	1-163-245-91	CERAMIC CHIP 56PF	5.00%	50V
C1016	1-162-915-11	CERAMIC CHIP 10PF	0.50PF	50V
C1017	1-163-247-91	CERAMIC CHIP 68PF	5.00%	50V

< COIL >

REF.NO.	PART.NO	DESCRIPTION	
L1004	1-412-751-11	INDUCTOR	18UH

< TRANSISTOR >

REF.NO.	PART.NO	DESCRIPTION
Q1002	8-729-010-29	TRANSISTOR MSD601-RST1
Q1003	8-729-027-43	TRANSISTOR DTC114EKA-T146

REF.NO.	PART.NO	DESCRIPTION			REMARK
		< RESISTOR >			
R1011	1-216-815-11	RES-CHIP	330	5%	1/16W
R1012	1-216-815-11	RES-CHIP	330	5%	1/16W
R1014	NOT FITTED				
R1015	1-216-817-11	RES-CHIP	470	5%	1/16W
R1016	1-216-809-11	RES-CHIP	100	5%	1/16W
R1018	1-216-825-91	RES-CHIP	2.2K	5%	1/16W
R1020	1-216-295-91	SHORT	0		
		< TUNER >			
TU1000	8-598-535-11	FRONTEND BTF-EF411			

A Board Variant Parts KV-29LS60E/29LS60K

REF.NO.	PART.NO	DESCRIPTION			REMARK
		< CAPACITOR >			
C1011	NOT FITTED				
C1012	NOT FITTED				
C1016	NOT FITTED				
C1017	NOT FITTED				
		< COIL >			
L1004	NOT FITTED				
		< TRANSISTOR >			
Q1002	NOT FITTED				
Q1003	NOT FITTED				
		< RESISTOR >			
R1011	NOT FITTED				
R1012	NOT FITTED				
R1014	1-216-295-91	SHORT	0		
R1015	NOT FITTED				
R1016	NOT FITTED				
R1018	NOT FITTED				
R1020	NOT FITTED				
		< TUNER >			
TU1000	8-598-533-01	FRONTEND BTF-EC411			

*A-1634-062-A M Board, Complete

REF.NO.	PART.NO	DESCRIPTION		REMARK
		< CAPACITOR >		
C0001	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V
C0002	1-164-315-11	CERAMIC CHIP 470PF	5.00%	50V
C0004	1-165-128-11	CERAMIC CHIP 0.22UF		16V
C0006	1-126-947-11	ELECT 47UF	20.00%	25V
C0007	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V
C0008	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V

REF.NO.	PART.NO	DESCRIPTION		REMARK
C0009	1-165-128-11	CERAMIC CHIP 0.22UF		16V
C0010	1-162-927-11	CERAMIC CHIP 100PF	5.00%	50V
C0011	1-165-128-11	CERAMIC CHIP 0.22UF		16V
C0012	1-162-924-11	CERAMIC CHIP 56PF	5.00%	50V
C0013	1-165-128-11	CERAMIC CHIP 0.22UF		16V
C0015	1-135-834-91	CERAMIC CHIP 2.2E+06PF		6.3V
C0016	1-165-128-11	CERAMIC CHIP 0.22UF		16V
C0017	1-162-924-11	CERAMIC CHIP 56PF	5.00%	50V
C0019	1-165-128-11	CERAMIC CHIP 0.22UF		16V
C0025	1-162-962-11	CERAMIC CHIP 470PF	10.00%	50V
C0026	1-162-962-11	CERAMIC CHIP 470PF	10.00%	50V
C0027	1-162-962-11	CERAMIC CHIP 470PF	10.00%	50V
C0028	1-126-947-11	ELECT 47UF	20.00%	25V
		< CONNECTOR >		
CN0001	1-793-497-11	CONNECTOR, BOARD TO BOARD 40P		
		< DIODE >		
D0001	8-719-992-02	DIODE RB705D		
D0301	8-719-069-56	DIODE UDZSTE-176.2B		
		< FERRITE BEAD >		
FB0003	1-216-295-91	SHORT	0	
FB0004	1-412-006-41	INDUCTOR	10UH	
FB0005	1-216-864-11	SHORT	0	
FB0006	1-216-864-11	SHORT	0	
FB0007	1-216-295-91	SHORT	0	
FB0008	1-216-295-91	SHORT	0	
FB0009	1-412-006-31	INDUCTOR	10UH	
FB0010	1-216-295-91	SHORT	0	
FB0011	1-412-006-31	INDUCTOR	10UH	
FB0012	1-216-295-91	SHORT	0	
FB0015	1-216-864-11	SHORT	0	
FB0016	1-216-864-11	SHORT	0	
FB0017	1-216-295-91	SHORT	0	
FB0018	1-216-295-91	SHORT	0	
FB0019	1-216-295-91	SHORT	0	
FB0020	1-216-295-91	SHORT	0	
		< IC >		
IC0001	8-759-699-33	IC M24C16-MN6T(A)		
IC0002	6-700-502-01	IC SAA5665HL/M1D/0358		
IC0003	8-759-672-39	IC PST573IMT		
IC0004	8-759-665-11	IC LM393DT		
IC0005	6-700-132-01	IC K6T2008V2A-YF70T00		
		< TRANSISTOR >		
Q0002	8-729-424-08	TRANSISTOR UN2111		
Q0003	8-729-424-08	TRANSISTOR UN2111		

Note : The components identified by shading and marked △ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION			REMARK
Q0006	8-729-010-29	TRANSISTOR MSD601-RST1			
Q0007	8-729-027-44	TRANSISTOR DTC114TKA-T146			
Q0008	8-729-027-44	TRANSISTOR DTC114TKA-T146			
Q0009	8-729-027-44	TRANSISTOR DTC114TKA-T146			
Q0010	8-729-027-44	TRANSISTOR DTC114TKA-T146			
Q0011	8-729-010-29	TRANSISTOR MSD601-RST1			
Q0012	8-729-424-08	TRANSISTOR UN2111			
Q0013	8-729-421-22	TRANSISTOR UN2211			

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION			REMARK
R0001	1-216-045-00	RES-CHIP	680	5%	1/10W
R0002	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
R0003	1-216-295-91	SHORT	0		
R0011	1-216-295-91	SHORT	0		
R0014	1-216-081-91	RES-CHIP	22K	5%	1/10W
R0016	1-216-025-11	RES-CHIP	100	5%	1/10W
R0017	1-216-093-91	RES-CHIP	68K	5%	1/10W
R0018	1-216-025-11	RES-CHIP	100	5%	1/10W
R0019	1-216-025-11	RES-CHIP	100	5%	1/10W
R0020	1-216-049-11	RES-CHIP	1K	5%	1/10W
R0022	1-216-809-11	RES-CHIP	100	5%	1/16W
R0023	1-216-097-11	RES-CHIP	100K	5%	1/10W
R0027	1-216-821-11	RES-CHIP	1K	5%	1/16W
R0028	1-216-809-11	RES-CHIP	100	5%	1/16W
R0029	1-216-025-11	RES-CHIP	100	5%	1/10W
R0030	1-216-025-11	RES-CHIP	100	5%	1/10W
R0032	1-216-809-11	RES-CHIP	100	5%	1/16W
R0033	1-216-809-11	RES-CHIP	100	5%	1/16W
R0034	1-218-725-11	RES-CHIP	24K	5%	1/16W
R0035	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R0037	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R0039	1-216-809-11	RES-CHIP	100	5%	1/16W
R0040	1-216-809-11	RES-CHIP	100	5%	1/16W
R0041	1-216-057-91	RES-CHIP	2.2K	5%	1/10W
R0042	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R0043	1-216-803-11	RES-CHIP	33	5%	1/16W
R0044	1-216-025-11	RES-CHIP	100	5%	1/10W
R0045	1-216-803-11	RES-CHIP	33	5%	1/16W
R0046	1-216-803-11	RES-CHIP	33	5%	1/16W
R0047	1-216-810-11	RES-CHIP	120	5%	1/16W
R0048	1-216-809-11	RES-CHIP	100	5%	1/16W
R0049	1-216-073-91	RES-CHIP	10K	5%	1/10W
R0050	1-216-810-11	RES-CHIP	120	5%	1/16W
R0051	1-216-835-91	RES-CHIP	15K	5%	1/16W
R0052	1-216-810-11	RES-CHIP	120	5%	1/16W
R0053	1-216-809-11	RES-CHIP	100	5%	1/16W
R0054	1-216-809-11	RES-CHIP	100	5%	1/16W
R0055	1-216-809-11	RES-CHIP	100	5%	1/16W
R0056	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0057	1-216-809-11	RES-CHIP	100	5%	1/16W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R0058	1-216-823-91	RES-CHIP	1.5K	5%	1/16W
R0059	1-216-841-11	RES-CHIP	47K	5%	1/16W
R0060	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0061	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0062	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0063	1-216-073-91	RES-CHIP	10K	5%	1/10W
R0065	1-216-073-91	RES-CHIP	10K	5%	1/10W
R0066	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0067	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0068	1-216-833-11	RES-CHIP	10K	5%	1/16W
R0069	1-216-073-91	RES-CHIP	10K	5%	1/10W
R0070	1-216-025-11	RES-CHIP	100	5%	1/10W
R0071	1-216-809-11	RES-CHIP	100	5%	1/16W
R0072	1-216-809-11	RES-CHIP	100	5%	1/16W
R0073	1-216-809-11	RES-CHIP	100	5%	1/16W
R0074	1-216-809-11	RES-CHIP	100	5%	1/16W
R0075	1-216-025-11	RES-CHIP	100	5%	1/10W
R0076	1-216-049-11	RES-CHIP	1K	5%	1/10W
R0078	1-216-041-00	RES-CHIP	470	5%	1/10W
R0079	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R0301	1-216-073-91	RES-CHIP	10K	5%	1/10W
R0302	1-216-073-91	RES-CHIP	10K	5%	1/10W
R0303	1-216-836-11	RES-CHIP	18K	5%	1/16W
R0304	1-216-831-11	RES-CHIP	6.8K	5%	1/16W

< CRYSTAL >

REF.NO.	PART.NO	DESCRIPTION			REMARK
X0001	1-578-774-11	VIBRATOR, CRYSTAL			

*A-1637-024-A G Board, Complete

4-382-854-01 SCREW (M3X8), P, SW (+)

< CAPACITOR >

REF.NO.		PART.NO	DESCRIPTION			REMARK
C6001	△	1-137-999-11	FILM	0.1UF		275V
C6002	△	1-137-999-11	FILM	0.1UF		275V
C6003	△	1-119-887-51	CERAMIC	1000PF	20.00%	250V
C6004	△	1-119-887-51	CERAMIC	1000PF	20.00%	250V
C6005		1-126-965-91	ELECT	22UF	20.00%	50V
C6006		1-117-753-11	ELECT(BLOCK)	470UF	20.00%	450V
C6007		1-126-964-11	ELECT	10UF	20.00%	50V
C6008		1-126-963-11	ELECT	4.7UF	20.00%	50V
C6010		1-136-165-00	FILM	0.1UF	5.00%	50V
C6011		1-162-964-11	CERAMIC CHIP	0.001UF	10.00%	50V
C6012		1-161-830-00	CERAMIC	0.0047UF		500V
C6013		1-161-830-00	CERAMIC	0.0047UF		500V
C6015		1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V
C6016		1-161-830-00	CERAMIC	0.0047UF		500V
C6017		1-161-830-00	CERAMIC	0.0047UF		500V
C6018		1-126-949-11	ELECT	220UF	20.00%	35V
C6019		1-164-645-11	CERAMIC	1000PF	10.00%	500V

G

REF.NO.	PART.NO	DESCRIPTION	REMARK
C6020	1-135-946-21	FILM 47000PF	3% 800V
C6021	1-164-645-11	CERAMIC 1000PF	10.00% 500V
C6022	1-126-963-11	ELECT 4.7UF	20.00% 50V
C6023	1-110-626-41	ELECT 330UF	20.00% 160V
C6024	1-164-625-91	CERAMIC CHIP 680PF	10.00% 500V
C6026	1-164-625-91	CERAMIC CHIP 680PF	10.00% 500V
C6027	1-164-625-91	CERAMIC CHIP 680PF	10.00% 500V
C6028	1-128-548-11	ELECT 4700UF	20.00% 25V
C6029	1-126-939-11	ELECT 10000UF	20.00% 16V
C6030	1-119-940-51	ELECT 4700UF	20.00% 50V
C6031	1-535-143-71	LEAD,JUMPER (7.5MM)	
C6032	1-127-802-51	CERAMIC CHIP 0.01UF	20.00% 250V
C6033	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
C6035	1-136-165-00	FILM 0.1UF	5.00% 50V
C6036	1-136-479-11	FILM 0.001UF	2.00% 50V
C6037	1-126-947-11	ELECT 47UF	20.00% 25V
C6038	1-164-645-91	CERAMIC CHIP 1000PF	10.00% 500V
C6039	1-125-891-91	CERAMIC CHIP 47UF	
C6040	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C6045	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C6102	1-126-943-11	ELECT 2200UF	20.00% 25V
C6103	1-126-971-11	ELECT 470UF	20.00% 50V
C6105	1-126-964-11	ELECT 10UF	20.00% 50V
C6106	1-126-964-11	ELECT 10UF	20.00% 50V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
CN6001	*1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN6002	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN6003	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
CN6004	*1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN6005	*1-564-509-11	PLUG, CONNECTOR 6P	
CN6006	*1-564-516-11	PLUG, CONNECTOR 13P	
CN6008	*1-564-507-11	PLUG, CONNECTOR 4P	

< DIODE >

REF.NO.	PART.NO	DESCRIPTION	REMARK
D6001	6-500-067-01	DIODE GSIB460L/45	
D6002	8-719-982-26	DIODE MTZJ-33B	
D6004	8-719-979-64	DIODE UF4005PKG23	
D6006	8-719-081-97	DIODE MMDL914T1	
D6007	8-719-081-97	DIODE MMDL914T1	
D6008	8-719-063-70	DIODE D1NL20U	
D6009	8-719-110-41	DIODE RD15ES-B2	
D6010	8-719-085-24	DIODE FBIU4D7M1-B	
D6016	8-719-309-99	DIODE RBV-406B	
D6031	8-719-080-59	DIODE EK19-V0	
D6032	8-719-080-59	DIODE EK19-V0	
D6033	8-719-022-99	DIODE D2S4MTA1	
D6034	8-719-022-99	DIODE D2S4MTA1	
D6101	8-719-081-97	DIODE MMDL914T1	
D6102	8-719-511-40	DIODE S1VB20-S	

REF.NO.	PART.NO	DESCRIPTION	REMARK
D6103	8-719-081-97	DIODE MMDL914T1	
D6104	8-719-081-97	DIODE MMDL914T1	
D6105	8-719-081-97	DIODE MMDL914T1	
D6106	8-719-081-97	DIODE MMDL914T1	
D6107	8-719-081-97	DIODE MMDL914T1	

< FERRITE BEAD >

REF.NO.	PART.NO	DESCRIPTION	REMARK
FB6002	1-410-397-21	FERRITE 1.1UH	
FB6003	1-410-397-21	FERRITE 1.1UH	
FB6005	1-535-143-61	LEAD, JUMPER (5.0MM)	
FB6006	1-535-143-61	LEAD, JUMPER (5.0MM)	

< IC >

REF.NO.	PART.NO	DESCRIPTION	REMARK
IC6001	8-759-670-30	IC MCZ3001D	
IC6003	8-749-016-19	IC SE135N-LF4	

< COIL >

REF.NO.	PART.NO	DESCRIPTION	REMARK
L6001	1-406-663-21	INDUCTOR 47UH	
L6002	1-412-529-11	INDUCTOR 22UH	
L6003	1-412-529-11	INDUCTOR 22UH	
L6004	1-535-143-61	LEAD, JUMPER (5.0MM)	
L6005	1-535-143-61	LEAD, JUMPER (5.0MM)	
L6006	1-406-659-11	INDUCTOR 10UH	
L6007	1-412-525-31	INDUCTOR 10UH	

< PHOTO COUPLER >

REF.NO.	PART.NO	DESCRIPTION	REMARK
PH6001 △	8-749-016-21	IC TCET1103G	

< TRANSISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
Q6003	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6005	8-729-029-56	TRANSISTOR DTA144ESA	
Q6006	8-729-056-60	TRANSISTOR SPA07N60C2	
Q6007	8-729-056-60	TRANSISTOR SPA07N60C2	
Q6010	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q6101	8-729-029-56	TRANSISTOR DTA144ESA	
Q6102	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6103	8-729-029-56	TRANSISTOR DTA144ESA	
Q6104	8-729-010-29	TRANSISTOR MSD601-RST1	
Q6105	8-729-010-29	TRANSISTOR MSD601-RST1	

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION	REMARK
JR6004	1-216-295-91	SHORT 0	
R6003	1-202-933-61	FUSIBLE 0.1	10% 1/2W
R6004	1-205-998-11	CEMENTED 1	5% 10W
R6005	1-205-998-11	CEMENTED 1	5% 10W
R6006	1-205-998-11	CEMENTED 1	5% 10W
R6007	1-243-979-21	METAL OXIDE 0.1	5% 2W
R6008	1-243-979-21	METAL OXIDE 0.1	5% 2W
R6009	1-208-810-11	METAL CHIP 15K	0.5% 1/10W

G C

REF.NO.	PART.NO	DESCRIPTION			REMARK
R6010	1-215-481-00	METAL	330K	1%	1/4W
R6013	△ 1-218-265-21	FILM	8.2M	5%	1W
R6014	1-215-926-00	METAL OXIDE	33K	5%	3W
R6015	1-208-757-11	METAL CHIP	91	0.5%	1/10W
R6016	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6017	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6018	1-247-895-91	CARBON	470K	5%	1/4W
R6019	1-247-891-00	CARBON	330K	5%	1/4W
R6020	1-216-820-11	RES-CHIP	820	5%	1/16W
R6021	1-216-362-11	METAL OXIDE	0.27	5%	2W
R6022	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6024	1-211-964-91	RES-CHIP	33	0.5%	1/10W
R6029	1-216-833-11	RES-CHIP	10K	5%	1/16W
R6030	1-216-817-11	RES-CHIP	470	5%	1/16W
R6032	1-249-417-11	CARBON	1K	5%	1/4W
R6033	1-215-481-00	METAL	330K	1%	1/4W
R6034	1-249-389-11	CARBON	4.7	5%	1/4W
R6035	1-260-083-91	CARBON	47	5%	1/2W
R6036	1-216-817-11	RES-CHIP	470	5%	1/16W
R6037	1-249-405-11	CARBON	100	5%	1/4W
R6038	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R6039	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R6040	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R6042	1-216-295-91	SHORT	0		
R6045	1-208-770-11	METAL CHIP	330	0.5%	1/10W
R6047	1-208-842-11	METAL CHIP	330K	0.5%	1/10W
R6048	1-215-481-00	METAL	330K	1%	1/4W
R6049	1-208-805-11	METAL CHIP	9.1K	0.5%	1/10W
R6050	1-208-758-11	METAL CHIP	100	0.5%	1/10W
R6054	1-211-964-91	RES-CHIP	33	0.5%	1/10W
R6056	1-216-295-91	SHORT	0		
R6101	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6102	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6103	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6104	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6105	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6106	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6107	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6108	1-216-821-11	RES-CHIP	1K	5%	1/16W
R6109	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R6110	1-216-821-11	RES-CHIP	1K	5%	1/16W

< RELAY >

RY6001	△ 1-755-395-11	RELAY (AC POWER)	
RY6002	△ 1-755-389-11	RELAY (AC POWER)	

< TRANSFORMER >

T6002	△ 1-437-443-11	TRANSFORMER, PIT
T6003	△ 1-424-896-11	TRANSFORMER, LINE FILTER

REF.NO.	PART.NO	DESCRIPTION		REMARK
T6101	△ 1-437-483-11	TRANSFORMER, STANDBY		

< THERMISTOR >

TH6002	△ 1-803-541-11	THERMISTOR

*A-1638-158-A C Board, Complete

	4-382-854-01	SCREW (M3X8), P, SW (+)

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION			REMARK
C7303	1-162-909-91	CERAMIC CHIP	4PF	0.25PF	50V
C7305	1-136-207-11	MYLAR	0.047UF	10.00%	400V
C7306	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C7309	1-163-035-00	CERAMIC CHIP	0.047UF		50V
C7310	1-163-247-91	CERAMIC CHIP	68PF	5.00%	50V
C7325	1-162-909-91	CERAMIC CHIP	4PF	0.25PF	50V
C7326	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C7330	1-136-207-11	MYLAR	0.047UF	10.00%	400V
C7333	1-163-035-00	CERAMIC CHIP	0.047UF		50V
C7334	1-163-247-91	CERAMIC CHIP	68PF	5.00%	50V
C7350	1-104-664-91	ELECT	47UF	20.00%	25V
C7351	1-162-909-91	CERAMIC CHIP	4PF	0.25PF	50V
C7352	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C7354	1-126-933-11	ELECT	100UF	20.00%	16V
C7355	1-107-967-11	ELECT	1UF	20.00%	400V
C7356	1-136-207-11	MYLAR	0.047UF	10.00%	400V
C7359	1-163-035-00	CERAMIC CHIP	0.047UF		50V
C7360	1-163-247-91	CERAMIC CHIP	68PF	5.00%	50V
C7378	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C7379	1-162-114-00	CERAMIC	0.0047UF		2KV
C7385	1-162-913-91	CERAMIC CHIP	8PF	0.50PF	50V
C7388	1-162-913-91	CERAMIC CHIP	8PF	0.50PF	50V
C7391	1-162-913-91	CERAMIC CHIP	8PF	0.50PF	50V

< CONNECTOR >

REF.NO.	PART.NO	DESCRIPTION
CN7300	*1-564-508-11	PLUG, CONNECTOR 5P
CN7301	*1-564-512-11	PLUG, CONNECTOR 9P
CN7311	1-695-915-11	TAB (CONTACT)
CN7333	1-695-915-11	TAB (CONTACT)

< DIODE >

REF.NO.	PART.NO	DESCRIPTION
D7300	8-719-911-19	DIODE 1SS119-25
D7325	8-719-911-19	DIODE 1SS119-25
D7350	8-719-911-19	DIODE 1SS119-25
D7375	8-719-991-33	DIODE 1SS133T-77
D7376	8-719-991-33	DIODE 1SS133T-77

< IC >

REF.NO.	PART.NO	DESCRIPTION
IC7300	8-759-360-83	IC TDA6111Q/N4
IC7325	8-759-360-83	IC TDA6111Q/N4

Note : The components identified by shading and marked △ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION			REMARK
IC7350	8-759-360-83	IC TDA6111Q/N4			
		< SOCKET >			
J7375	△ 1-251-732-11	SOCKET, CRT			
		< COIL >			
L7375	1-410-671-31	INDUCTOR	47UH		
L7376	△ 1-532-637-00	LINK, IC 1A/150V			ICP-N25
L7378	1-414-934-21	INDUCTOR	10UH		
		< TRANSISTOR >			
Q7350	8-729-901-06	TRANSISTOR DTA144EK			
Q7352	8-729-421-19	TRANSISTOR UN2213			
Q7353	8-729-421-19	TRANSISTOR UN2213			
Q7354	8-729-901-06	TRANSISTOR DTA144EK			
Q7355	8-729-421-19	TRANSISTOR UN2213			
		< RESISTOR >			
R7300	1-249-417-11	CARBON	1K	5%	1/4W
R7302	1-535-143-61	LEAD, JUMPER (5.0MM)			
R7303	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7304	1-202-565-81	SOLID	470	20%	1/2W
R7305	1-215-903-11	METAL OXIDE	68K	5%	2W
R7306	1-535-143-61	LEAD, JUMPER (5.0MM)			
R7309	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7325	1-249-417-11	CARBON	1K	5%	1/4W
R7327	1-535-143-61	LEAD, JUMPER (5.0MM)			
R7328	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7329	1-202-565-81	SOLID	470	20%	1/2W
R7330	1-215-903-11	METAL OXIDE	68K	5%	2W
R7331	1-535-143-61	LEAD, JUMPER (5.0MM)			
R7335	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7350	1-249-417-11	CARBON	1K	5%	1/4W
R7355	1-535-143-61	LEAD, JUMPER (5.0MM)			
R7356	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7357	1-202-565-81	SOLID	470	20%	1/2W
R7358	1-215-903-11	METAL OXIDE	68K	5%	2W
R7360	1-535-143-61	LEAD, JUMPER (5.0MM)			
R7364	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7373	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R7375	1-249-435-11	CARBON	33K	5%	1/4W
R7376	1-249-429-11	CARBON	10K	5%	1/4W
R7377	1-249-430-11	CARBON	12K	5%	1/4W
R7379	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7380	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7381	1-216-833-11	RES-CHIP	10K	5%	1/16W
R7382	1-202-549-00	SOLID	100	20%	1/2W
R7383	1-216-399-00	METAL OXIDE	6.8	5%	3W
R7384	1-216-399-00	METAL OXIDE	6.8	5%	3W

REF.NO.	PART.NO	DESCRIPTION			REMARK
R7385	1-202-549-00	SOLID	100	20%	1/2W
R7388	1-535-143-51	LEAD, JUMPER (20.0MM)			
R7390	1-249-417-11	CARBON	1K	5%	1/4W
R7391	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7393	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R7394	1-249-417-11	CARBON	1K	5%	1/4W
R7395	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
R7397	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R7398	1-249-417-11	CARBON	1K	5%	1/4W
R7399	1-216-824-11	RES-CHIP	1.8K	5%	1/16W
		< VARIABLE RESISTOR >			
RV7375	1-241-656-11	RES, ADJ, METAL FILM 110M			

*A-1640-432-A D Board, Complete

REF.NO.	PART.NO	DESCRIPTION			REMARK
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	*4-931-401-01	HEAT SINK, V.OUT			
		< CAPACITOR >			
C8100	1-136-165-00	FILM	0.1UF	5.00%	50V
C8101	1-136-165-00	FILM	0.1UF	5.00%	50V
C8102	1-136-165-00	FILM	0.1UF	5.00%	50V
C8103	1-115-416-11	CERAMIC CHIP 0.001UF		5.00%	25V
C8104	1-115-416-11	CERAMIC CHIP 0.001UF		5.00%	25V
C8105	1-126-947-11	ELECT	47UF	20.00%	25V
C8106	1-164-315-11	CERAMIC CHIP 470PF		5.00%	50V
C8108	1-162-970-11	CERAMIC CHIP 0.01UF		10.00%	25V
C8109	1-126-947-11	ELECT	47UF	20.00%	25V
C8113	1-162-970-11	CERAMIC CHIP 0.01UF		10.00%	25V
C8114	1-126-964-11	ELECT	10UF	20.00%	50V
C8115	1-162-962-11	CERAMIC CHIP 470PF		10.00%	50V
C8116	1-115-416-11	CERAMIC CHIP 0.001UF		5.00%	25V
C8117	1-115-416-11	CERAMIC CHIP 0.001UF		5.00%	25V
C8118	1-162-970-11	CERAMIC CHIP 0.01UF		10.00%	25V
C8120	1-165-176-11	CERAMIC CHIP 0.047UF		10.00%	16V
C8125	1-162-968-11	CERAMIC CHIP 0.0047UF		10.00%	50V
C8126	1-165-176-11	CERAMIC CHIP 0.047UF		10.00%	16V
C8128	1-162-968-11	CERAMIC CHIP 0.0047UF		10.00%	50V
C8130	1-164-230-11	CERAMIC CHIP 220PF		5.00%	50V
C8131	1-126-964-11	ELECT	10UF	20.00%	50V
C8132	1-164-230-11	CERAMIC CHIP 220PF		5.00%	50V
C8134	1-102-406-91	CERAMIC	2PF	0.25PF	50V
C8135	1-126-964-11	ELECT	10UF	20.00%	50V
C8136	1-126-964-11	ELECT	10UF	20.00%	50V
C8140	1-164-004-11	CERAMIC CHIP 0.1UF		10.00%	25V
C8207	1-165-176-91	CERAMIC CHIP 0.047UF		10.00%	16V
C8208	1-162-970-91	CERAMIC CHIP 0.01UF		10.00%	25V
C8209	1-164-315-11	CERAMIC CHIP 470PF		5.00%	50V
C8210	1-162-964-11	CERAMIC CHIP 0.001UF		10.00%	50V

REF.NO.	PART.NO	DESCRIPTION			REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C8801	1-126-947-11	ELECT	47UF	20.00% 25V		CN8616	1-695-915-11	TAB (CONTACT)	
C8802	1-126-960-11	ELECT	1UF	20.00% 50V		CN8620	*1-764-333-11	PLUG, CONNECTOR 10P	
C8803	1-126-960-11	ELECT	1UF	20.00% 50V		CN8810	*1-564-510-11	PLUG, CONNECTOR 7P	
C8804	1-102-114-00	CERAMIC	470PF	10.00% 50V					
C8805	1-102-114-00	CERAMIC	470PF	10.00% 50V				< DIODE >	
C8808	1-102-030-00	CERAMIC	330PF	10.00% 500V		D8102	8-719-081-97	DIODE MMDL914T1	
C8809	1-102-030-00	CERAMIC	330PF	10.00% 500V		D8103	8-719-081-97	DIODE MMDL914T1	
C8810	1-107-368-11	MYLAR	0.047UF	10.00% 200V		D8104	8-719-081-97	DIODE MMDL914T1	
C8811	1-107-368-11	MYLAR	0.047UF	10.00% 200V		D8105	8-719-081-97	DIODE MMDL914T1	
C8812	1-162-131-11	CERAMIC	220PF	10.00% 2KV		D8107	8-719-081-97	DIODE MMDL914T1	
C8813	1-107-444-11	CERAMIC	100PF	10.00% 2KV		D8108	8-719-921-40	DIODE MTZJ-4.7C	
C8814	1-117-640-11	FILM	6800PF	3.00% 1.2KV		D8128	8-719-081-97	DIODE MMDL914T1	
C8815	1-117-835-11	FILM	6200PF	3.00% 1.5KV		D8129	8-719-081-97	DIODE MMDL914T1	
C8816	1-162-964-11	CERAMIC CHIP 0.001UF		10.00% 50V		D8132	8-719-081-97	DIODE MMDL914T1	
C8817	1-125-893-11	FILM	680PF	3.00% 1.5KV		D8133	8-719-081-97	DIODE MMDL914T1	
C8818	1-125-893-11	FILM	680PF	3.00% 1.5KV		D8198	1-535-143-61	LEAD, JUMPER (5.0MM)	
C8819	1-125-893-11	FILM	680PF	3.00% 1.5KV		D8199	8-719-081-97	DIODE MMDL914T1	
C8820	1-125-893-11	FILM	680PF	3.00% 1.5KV		D8611	8-719-081-97	DIODE MMDL914T1	
C8824	1-107-846-11	FILM	0.1UF	5.00% 250V		D8612	8-719-081-97	DIODE MMDL914T1	
C8825	1-117-663-11	FILM	0.22UF	5.00% 250V		D8803	8-719-908-03	DIODE GP08D	
C8826	1-115-518-11	FILM	0.47UF	5.00% 250V		D8805	8-719-302-43	DIODE EL1Z	
C8827	1-117-660-21	FILM	0.12UF	5.00% 250V		D8806	8-719-979-85	DIODE EGP20G	
C8828	1-127-681-11	FILM MELF	10000PF	2% 100V		D8807	8-719-085-12	DIODE BYV98-200-RAS 15/12	
C8829	1-127-680-11	FILM MELF	4700PF	2% 100V		D8808	8-719-085-12	DIODE BYV98-200-RAS 15/12	
C8830	1-107-655-11	ELECT	47UF	20.00% 250V		D8811	8-719-110-41	DIODE RD15ES-B2	
C8831	1-102-228-00	CERAMIC	470PF	10.00% 500V		D8818	8-719-109-89	DIODE RD5.6ESB2	
C8832	1-126-941-11	ELECT	470UF	20.00% 25V		D8819	8-719-050-38	DIODE M1MA152WK-T1	
C8833	1-126-941-11	ELECT	470UF	20.00% 25V		D8820	8-719-081-97	DIODE MMDL914T1	
C8834	1-102-228-00	CERAMIC	470PF	10.00% 500V		D8851	8-719-970-87	DIODE ERA38-06	
C8835	1-102-228-00	CERAMIC	470PF	10.00% 500V		D8856	8-719-081-97	DIODE MMDL914T1	
C8836	1-123-024-21	ELECT	33UF	160V		D8857	8-719-110-41	DIODE RD15ES-B2	
C8837	1-106-375-12	MYLAR	0.022UF	10.00% 250V		D8858	8-719-081-97	DIODE MMDL914T1	
C8840	1-165-176-11	CERAMIC CHIP 0.047UF		10.00% 16V					
C8841	1-126-947-11	ELECT	47UF	20.00% 25V				< FERRITE BEAD >	
C8844	1-115-513-21	FILM	0.18UF	5.00% 250V					
						FB8806	1-410-397-31	INDUCTOR 1.1UH	
C8851	1-162-131-11	CERAMIC	220PF	10.00% 2KV		FB8807	1-410-397-21	FERRITE 1.1UH	
C8852	1-162-129-00	CERAMIC	150PF	10.00% 2KV					
C8853	1-129-898-00	FILM	0.0022UF	5.00% 630V				< IC >	
C8855	1-136-205-11	MYLAR	0.022UF	10.00% 400V					
C8856	1-102-030-00	CERAMIC	330PF	10.00% 500V		IC8100	8-759-450-95	IC LM393N	
						IC8101	8-759-450-95	IC LM393N	
C8860	1-162-964-11	CERAMIC CHIP 0.001UF		10.00% 50V		IC8102	8-759-638-79	IC NJM3404AD-W	
C8861	1-162-927-11	CERAMIC CHIP 100PF		5.00% 50V		IC8103	8-759-450-95	IC LM393N	
C8869	1-162-964-11	CERAMIC CHIP 0.001UF		10.00% 50V					
								< COIL >	
		< CONNECTOR >							
						L8801	1-410-397-21	FERRITE 1.1UH	
CN8600	*1-564-509-11	PLUG, CONNECTOR 6P				L8802	1-410-397-21	FERRITE 1.1UH	
CN8601	*1-564-506-11	PLUG, CONNECTOR 3P				L8803	1-410-397-21	FERRITE 1.1UH	
CN8611	*1-785-270-12	PIN, DY CONNECTOR (PC BOARD)				L8805	1-408-947-00	INDUCTOR 2.2MH	
CN8612	*1-564-511-51	PLUG, CONNECTOR 8P				L8851	1-535-143-61	LEAD, JUMPER (5.0MM)	
CN8614	*1-564-508-11	PLUG, CONNECTOR 5P							

REF.NO.	PART.NO	DESCRIPTION			REMARK		REF.NO.	PART.NO	DESCRIPTION			REMARK
							R8102	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
	< FILTER >						R8103	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
							R8104	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
LF8801	1-406-985-11	INDUCTOR	2.2MH				R8105	1-216-821-11	RES-CHIP	1K	5%	1/16W
LF8851	1-406-674-11	INDUCTOR	3.3MH				R8106	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
	< TRANSISTOR >						R8107	1-208-792-91	RES-CHIP	2.7K	5%	1/10W
							R8108	1-208-792-91	RES-CHIP	2.7K	5%	1/10W
Q8100	8-729-010-29	TRANSISTOR MSD601-RST1					R8109	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
Q8101	8-729-010-29	TRANSISTOR MSD601-RST1					R8110	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
Q8102	8-729-010-29	TRANSISTOR MSD601-RST1					R8111	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8103	8-729-010-29	TRANSISTOR MSD601-RST1										
Q8104	8-729-010-29	TRANSISTOR MSD601-RST1					R8112	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
							R8113	1-216-833-11	RES-CHIP	10K	5%	1/16W
Q8105	8-729-010-29	TRANSISTOR MSD601-RST1					R8114	1-216-833-11	RES-CHIP	10K	5%	1/16W
Q8106	8-729-010-29	TRANSISTOR MSD601-RST1					R8115	1-216-845-91	RES-CHIP	100K	5%	1/16W
Q8107	8-729-010-29	TRANSISTOR MSD601-RST1					R8116	1-216-845-91	RES-CHIP	100K	5%	1/16W
Q8108	8-729-010-05	TRANSISTOR MSB709-RT1										
Q8110	8-729-010-05	TRANSISTOR MSB709-RT1					R8117	1-216-833-11	RES-CHIP	10K	5%	1/16W
							R8118	1-216-833-11	RES-CHIP	10K	5%	1/16W
Q8112	8-729-010-29	TRANSISTOR MSD601-RST1					R8119	1-216-833-11	RES-CHIP	10K	5%	1/16W
Q8113	8-729-010-29	TRANSISTOR MSD601-RST1					R8120	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8115	8-729-010-05	TRANSISTOR MSB709-RT1					R8121	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8118	8-729-010-29	TRANSISTOR MSD601-RST1										
Q8119	8-729-010-05	TRANSISTOR MSB709-RT1					R8122	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
							R8123	1-216-841-11	RES-CHIP	47K	5%	1/16W
Q8120	8-729-010-05	TRANSISTOR MSB709-RT1					R8124	1-216-821-91	RES-CHIP	1K	5%	1/10W
Q8122	8-729-010-05	TRANSISTOR MSB709-RT1					R8125	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8123	8-729-010-05	TRANSISTOR MSB709-RT1					R8126	1-216-815-11	RES-CHIP	330	5%	1/16W
Q8125	8-729-010-29	TRANSISTOR MSD601-RST1										
Q8126	8-729-010-05	TRANSISTOR MSB709-RT1					R8127	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W
							R8128	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
Q8127	8-729-010-05	TRANSISTOR MSB709-RT1					R8129	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
Q8128	8-729-010-29	TRANSISTOR MSD601-RST1					R8130	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
Q8132	8-729-421-19	TRANSISTOR UN2213					R8131	1-216-815-11	RES-CHIP	330	5%	1/16W
Q8135	8-729-010-29	TRANSISTOR MSD601-RST1										
Q8136	8-729-010-05	TRANSISTOR MSB709-RT1					R8132	1-216-815-11	RES-CHIP	330	5%	1/16W
							R8133	1-216-815-11	RES-CHIP	330	5%	1/16W
Q8137	8-729-010-29	TRANSISTOR MSD601-RST1					R8136	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
Q8201	8-729-010-29	TRANSISTOR MSD601-RST1					R8137	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
Q8202	8-729-010-29	TRANSISTOR MSD601-RST1					R8138	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
Q8203	8-729-010-05	TRANSISTOR MSB709-RT1										
Q8455	8-729-010-29	TRANSISTOR MSD601-RST1					R8139	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
							R8140	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8801	8-729-048-47	TRANSISTOR 2SC2688(5)-LK					R8141	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
Q8802	8-729-048-47	TRANSISTOR 2SC2688(5)-LK					R8142	1-208-803-11	METAL CHIP	7.5K	0.5%	1/10W
Q8803	8-729-056-16	TRANSISTOR 2SC5698-CA					R8143	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8804	8-729-056-17	TRANSISTOR 2SC5696-SONY-CA										
Q8805	8-729-050-48	TRANSISTOR IRF614-005					R8144	1-216-841-11	RES-CHIP	47K	5%	1/16W
							R8145	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
Q8806	8-729-047-59	TRANSISTOR STP5NB40FP					R8146	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
Q8807	8-729-421-19	TRANSISTOR UN2213					R8149	1-216-828-11	RES-CHIP	3.9K	5%	1/16W
Q8822	8-729-010-29	TRANSISTOR MSD601-RST1					R8150	1-216-837-91	RES-CHIP	22K	5%	1/16W
Q8823	8-729-024-83	TRANSISTOR MUN2111T1										
Q8851	6-550-012-01	TRANSISTOR STP5NB40(030Y)					R8153	1-216-295-91	SHORT	0		
							R8154	1-208-782-11	METAL CHIP	1K	0.5%	1/10W
	< RESISTOR >						R8155	1-208-789-91	RES-CHIP	2K	0.5%	1/10W
							R8158	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W
R8100	1-216-813-11	RES-CHIP	220	5%	1/16W		R8159	1-216-295-91	SHORT	0		
R8101	1-216-813-11	RES-CHIP	220	5%	1/16W							

REF.NO.	PART.NO	DESCRIPTION			REMARK	REF.NO.	PART.NO	DESCRIPTION			REMARK
R8160	1-216-295-91	SHORT	0			R8806	1-249-411-11	CARBON	330	5%	1/4W
R8161	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W	R8807	1-249-411-11	CARBON	330	5%	1/4W
R8162	1-216-821-11	RES-CHIP	1K	5%	1/16W	R8808	1-260-340-11	CARBON	10K	5%	1/2W
R8163	1-216-833-11	RES-CHIP	10K	5%	1/16W	R8809	1-260-340-11	CARBON	10K	5%	1/2W
R8164	1-208-814-91	METAL CHIP	22K	0.5%	1/10W	R8810	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R8165	1-208-830-11	METAL CHIP	100K	0.5%	1/10W	R8811	1-215-896-51	METAL	4.7K	5%	2W
R8168	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R8812	1-216-461-51	METAL	5.6K	5%	2W
R8169	1-208-830-11	METAL CHIP	100K	0.5%	1/10W	R8813	1-215-895-11	METAL OXIDE	3.3K	5%	2W
R8170	1-216-815-11	RES-CHIP	330	5%	1/16W	R8814	1-215-880-00	METAL OXIDE	10	5%	2W
R8171	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8815	1-215-880-00	METAL OXIDE	10	5%	2W
R8174	1-216-834-11	RES-CHIP	12K	5%	1/16W	R8816	1-216-365-51	METAL	0.47	5%	2W
R8175	1-216-831-91	RES-CHIP	6.8K	5%	1/16W	R8817	1-216-361-00	METAL OXIDE	0.22	5%	2W
R8176	1-216-838-91	RES-CHIP	27K	5%	1/16W	R8818	1-249-405-11	CARBON	100	5%	1/4W
R8177	1-216-830-91	RES-CHIP	5.6K	5%	1/16W	R8819	1-247-807-31	CARBON	100	5%	1/4W
R8179	1-216-295-91	SHORT	0			R8831	1-260-124-11	CARBON	120K	5%	1/2W
R8180	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8833	1-202-972-61	FUSIBLE	1	5%	1/4W
R8181	1-216-295-91	SHORT	0			R8834	1-260-288-11	CARBON	0.47	5%	1/2W
R8182	1-216-841-11	RES-CHIP	47K	5%	1/16W	R8835	1-260-288-11	CARBON	0.47	5%	1/2W
R8183	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8836	1-249-432-11	CARBON	18K	5%	1/4W
R8186	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	R8837	1-215-894-11	METAL OXIDE	2.2K	5%	2W
R8188	1-216-829-91	RES-CHIP	4.7K	5%	1/16W	R8838	1-214-905-11	METAL	47K	1%	1/2W
R8189	1-216-822-91	RES-CHIP	1.2K	5%	1/16W	R8839	1-215-894-11	METAL OXIDE	2.2K	5%	2W
R8190	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8840	1-247-843-11	CARBON	3.3K	5%	1/4W
R8191	1-215-925-11	METAL OXIDE	22K	5%	3W	R8842	1-260-123-11	CARBON	100K	5%	1/2W
R8196	1-249-377-11	CARBON	0.47	5%	1/4W	R8843	1-216-833-11	RES-CHIP	10K	5%	1/16W
R8197	1-216-841-91	RES-CHIP	47K	5%	1/16W	R8844	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8203	1-208-789-91	RES-CHIP	2K	0.5%	1/10W	R8845	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8204	1-216-295-91	SHORT	0			R8851	1-260-123-11	CARBON	100K	5%	1/2W
R8205	1-216-295-91	SHORT	0			R8852	1-260-123-11	CARBON	100K	5%	1/2W
R8206	1-216-849-91	RES-CHIP	220K	5%	1/16W	R8853	1-260-123-11	CARBON	100K	5%	1/2W
R8207	1-216-846-91	RES-CHIP	120K	5%	1/16W	R8854	1-247-847-91	CARBON	4.7K	5%	1/4W
R8209	1-216-295-91	SHORT	0			R8856	1-216-485-11	METAL OXIDE	5.6K	5%	3W
R8210	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8857	1-216-485-11	METAL OXIDE	5.6K	5%	3W
R8211	1-216-833-11	RES-CHIP	10K	5%	1/16W	R8858	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8212	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8859	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8215	1-208-814-91	METAL CHIP	22K	0.5%	1/10W	R8865	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8216	1-208-812-91	RES-CHIP	18K	0.5%	1/10W	R8866	1-216-295-91	SHORT	0		
R8217	1-216-833-11	RES-CHIP	10K	5%	1/16W	R8867	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R8219	1-216-841-11	RES-CHIP	47K	5%	1/16W	R8869	1-216-837-11	RES-CHIP	22K	5%	1/16W
R8220	1-216-834-11	RES-CHIP	12K	5%	1/16W	R8870	1-216-837-11	RES-CHIP	22K	5%	1/16W
R8221	1-216-837-91	RES-CHIP	22K	5%	1/16W	R8885	1-208-854-11	METAL CHIP	1M	0.5%	1/10W
R8223	1-164-230-91	CERAMIC CHIP	220PF	5%	50V	R8886	1-208-836-91	RES-CHIP	180K	0.5%	1/10W
R8224	1-216-827-91	RES-CHIP	3.3K	5%	1/16W	R8887	1-216-841-11	RES-CHIP	47K	5%	1/16W
R8456	1-216-845-11	RES-CHIP	100K	5%	1/16W	R8888	1-249-441-11	CARBON	100K	5%	1/4W
R8457	1-216-834-11	RES-CHIP	12K	5%	1/16W	R8895	1-249-443-11	CARBON	0.47	5%	1/4W
R8458	1-216-841-11	RES-CHIP	47K	5%	1/16W	R8896	1-249-443-11	CARBON	0.47	5%	1/4W
R8459	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R8897	1-215-485-00	METAL	470K	1%	1/4W
R8800	1-247-895-91	CARBON	470K	5%	1/4W	R8898	1-215-493-00	METAL	1M	1%	1/4W
R8804	1-249-408-11	CARBON	180	5%	1/4W	R8899	1-215-493-00	METAL	1M	1%	1/4W
R8805	1-249-408-11	CARBON	180	5%	1/4W						

Note : The components identified by shading and marked △ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK

< TRANSFORMER >

REF.NO.	PART.NO	DESCRIPTION	REMARK
T8800 △	1-453-340-31	TRANSFORMER ASSY,FLYBACK (NX-4522//Z2B4)	
T8801	1-437-430-11	TRANSFORMER, FERRITE (HDT)	
T8802	1-437-430-11	TRANSFORMER, FERRITE (HDT)	
T8852	1-433-487-11	TRANSFORMER, FERRITE (DFT)	

*A-1647-043-A H2 Board, Complete

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION		REMARK
C2906	1-126-960-11	ELECT	1UF	20.00% 50V
C2907	1-126-960-11	ELECT	1UF	20.00% 50V
C2913	1-162-964-11	CERAMIC CHIP 0.001UF		10.00% 50V
C2914	1-162-964-11	CERAMIC CHIP 0.001UF		10.00% 50V

< CONNECTOR >

CN2900	1-779-947-11	TERMINAL BLOCK, S
CN2906	*1-564-524-11	PLUG, CONNECTOR 9P
CN2908	1-564-521-11	PLUG, CONNECTOR 6P

< JACK >

| J2900 | 1-750-264-11 | JACK |

< COIL >

L0904	1-410-119-11	INDUCTOR	1MH
L2900	1-535-143-61	LEAD, JUMPER (5.0MM)	
L2901	1-535-143-61	LEAD, JUMPER (5.0MM)	
L2902	1-535-143-61	LEAD, JUMPER (5.0MM)	
L2903	1-535-143-61	LEAD, JUMPER (5.0MM)	

< RESISTOR >

R912	1-535-143-61	LEAD, JUMPER (5.0MM)		
R0901	1-249-427-11	CARBON	6.8K 5%	1/4W
R0902	1-249-429-11	CARBON	10K 5%	1/4W
R0911	1-249-419-11	CARBON	1.5K 5%	1/4W
R0913	1-247-843-11	CARBON	3.3K 5%	1/4W
R0914	1-249-431-11	CARBON	15K 5%	1/4W
R2903	1-249-406-11	CARBON	120 5%	1/4W
R2904	1-249-406-11	CARBON	120 5%	1/4W
R2909	1-247-895-91	CARBON	470K 5%	1/4W
R2910	1-247-895-91	CARBON	470K 5%	1/4W
R2915	1-249-406-11	CARBON	120 5%	1/4W
R2916	1-249-406-11	CARBON	120 5%	1/4W
R2917	1-249-412-11	CARBON	390 5%	1/4W
R2918	1-249-412-11	CARBON	390 5%	1/4W

< SWITCH >

S0900	1-692-979-11	SWITCH, TACTILE
S0901	1-692-979-11	SWITCH, TACTILE
S0902	1-692-979-11	SWITCH, TACTILE

*A-1644-119-A VM Board, Complete

| 4-382-854-01 | SCREW (M3X8), P, SW (+) |

< CAPACITOR >

REF.NO.	PART.NO	DESCRIPTION		REMARK
C7401	1-126-935-11	ELECT	470UF	20.00% 16V
C7403	1-126-935-11	ELECT	470UF	20.00% 6.3V
C7404	1-115-339-11	CERAMIC CHIP 0.1UF		10.00% 50V
C7405	1-126-933-11	ELECT	100UF	20.00% 16V
C7406	1-126-935-11	ELECT	470UF	20.00% 6.3V
C7407	1-107-364-11	MYLAR	0.01UF	10.00% 200V
C7408	1-107-364-11	MYLAR	0.01UF	10.00% 200V
C7409	1-107-649-11	ELECT	2.2UF	20.00% 250V
C7410	1-130-471-00	MYLAR	0.001UF	5.00% 50V
C7411	1-130-471-00	MYLAR	0.001UF	5.00% 50V
C7412	1-126-935-11	ELECT	470UF	20.00% 16V
C7413	1-126-935-11	ELECT	470UF	20.00% 16V
C7414	1-107-652-11	ELECT	10UF	20.00% 250V
C7415	1-107-363-91	MYLAR	0.0068UF	10.00% 200V
C7418	1-163-021-91	CERAMIC CHIP 0.01UF		10.00% 50V
C7421	1-163-251-11	CERAMIC CHIP 100PF		5.00% 50V

< CONNECTOR >

CN7442	*1-564-508-11	PLUG, CONNECTOR 5P
CN7443	*1-564-506-11	PLUG, CONNECTOR 3P
CN7444	*1-770-723-11	CONNECTOR, BOARD TO BOARD 8P

< DIODE >

D7400	8-719-991-33	DIODE 1SS133T-77
D7401	8-719-991-33	DIODE 1SS133T-77
D7402	1-535-143-61	LEAD, JUMPER (5.0MM)
D7403	8-719-991-33	DIODE 1SS133T-77
D7404	8-719-991-33	DIODE 1SS133T-77
D7405	8-719-924-11	DIODE MTZJ-T-77-22
D7406	8-719-924-11	DIODE MTZJ-T-77-22

< FERRITE BEAD >

| FB7400 | 1-535-143-61 | LEAD, JUMPER (5.0MM) |
| FB7401 | 1-535-143-61 | LEAD, JUMPER (5.0MM) |

< COIL >

L7400	1-414-934-21	INDUCTOR	10UH
L7402	1-414-934-21	INDUCTOR	10UH
L7403	1-414-934-21	INDUCTOR	10UH

< TRANSISTOR >

Q7400	8-729-010-29	TRANSISTOR MSD601-RST1
Q7401	8-729-010-29	TRANSISTOR MSD601-RST1
Q7402	8-729-010-29	TRANSISTOR MSD601-RST1

VM

REF.NO.	PART.NO	DESCRIPTION			REMARK
Q7403	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q7404	8-729-216-22	TRANSISTOR 2SA1162-G			
Q7405	8-729-026-39	TRANSISTOR 2SA933AS-QT			
Q7406	8-729-045-05	TRANSISTOR 2SA2005			
Q7407	8-729-045-04	TRANSISTOR 2SC5511			
Q7408	8-729-216-22	TRANSISTOR 2SA1162-G			
Q7409	8-729-010-29	TRANSISTOR MSD601-RST1			

< RESISTOR >

REF.NO.	PART.NO	DESCRIPTION			REMARK
R7400	1-216-017-91	RES-CHIP	47	5%	1/10W
R7401	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R7402	1-216-041-00	RES-CHIP	470	5%	1/10W
R7403	1-249-393-11	CARBON	10	5%	1/4W
R7404	1-249-413-11	CARBON	470	5%	1/4W
R7405	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R7407	1-249-411-11	CARBON	330	5%	1/4W
R7409	1-216-029-00	RES-CHIP	150	5%	1/10W
R7410	1-216-017-91	RES-CHIP	47	5%	1/10W
R7411	1-216-017-91	RES-CHIP	47	5%	1/10W
R7412	1-216-017-91	RES-CHIP	47	5%	1/10W
R7413	1-249-414-11	CARBON	560	5%	1/4W
R7414	1-249-432-11	CARBON	18K	5%	1/4W
R7415	1-247-739-11	CARBON	100	5%	1/2W
R7416	1-249-389-11	CARBON	4.7	5%	1/4W
R7417	1-249-432-11	CARBON	18K	5%	1/4W
R7418	1-249-414-11	CARBON	560	5%	1/4W
R7419	1-249-421-11	CARBON	2.2K	5%	1/4W
R7420	1-249-421-11	CARBON	2.2K	5%	1/4W
R7421	1-249-389-91	CARBON	4.7	5%	1/4W
R7422	1-249-405-11	CARBON	100	5%	1/4W
R7423	1-215-915-11	METAL OXIDE	470	5%	3W
R7427	1-216-025-11	RES-CHIP	100	5%	1/10W
R7428	1-216-033-00	RES-CHIP	220	5%	1/10W
R7429	1-216-033-00	RES-CHIP	220	5%	1/10W
R7432	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R7433	1-247-787-91	RES-CHIP	15	5%	1/4W
R7434	1-249-395-11	CARBON	15	5%	1/4W
R7435	1-216-033-91	RES-CHIP	220	5%	1/10W
R7436	1-216-049-91	RES-CHIP	1K	5%	1/10W

MISCELLANEOUS

REF.NO.	PART.NO	DESCRIPTION	REMARK
△	1-571-433-21	SWITCH, PUSH (AC POWER)	
△	1-765-286-11	CORD, POWER	
	1-424-855-11	COIL, CHOKE	
	8-598-535-11	FRONTEND (BTF-EF411) (KV-29LS60B)	
	8-598-533-01	FRONTEND (BTF-EC411) (KV-29LS60E/29LS60K)	
△	1-453-340-31	TRANSFORMER ASSY, FLYBACK (NX-4522//Z2B4)	
	1-529-989-11	SPEAKER (8CM)	
	1-529-408-11	SPEAKER (4.2x24CM)	
△	8-735-053-05	PICTURE TUBE (M68LNH060X)	
	8-451-504-31	DEFLECTION YOKE (Y29RSC-S)	
	1-452-896-11	COIL, NA ROTATION (RT-200)	
△	1-424-887-11	COIL, DEGAUSSING	
	8-453-011-41	NECK ASSY, (NA299-C)	
△	1-251-946-11	CAP ASSY, HIGH-VOLTAGE	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM	
	1-452-032-00	MAGNET, DISK; 10MM	

ACCESSORIES AND PACKAGING MATERIALS

PART.NO	DESCRIPTION
*4-029-168-01	BAG, PROTECTION
*4-205-942-01	INDIVIDUAL CARTON
4-206-052-21	INSTRUCTION MANUAL (KV-29LS60B) (GERMAN/FRENCH/ITALIAN/DUTCH)
4-206-052-11	INSTRUCTION MANUAL (KV-29LS60E) (GERMAN/GREEK/TURKISH)
4-206-052-41	INSTRUCTION MANUAL (KV-29LS60E) (ITALIAN)
4-206-052-51	INSTRUCTION MANUAL (KV-29LS60E) (DANISH/SPANISH/NORWEGIAN/PORTUGUESE SWEDISH/FINNISH)
4-206-052-31	INSTRUCTION MANUAL (KV-29LS60K) (ENGLISH/BULGARIAN/CZECH/HUNGARIAN POLISH/RUSSIAN)

REMOTE COMMANDER

PART.NO	DESCRIPTION
1-476-702-11	REMOTE COMMANDER (RM-932)

TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.

The TRACE interface connects to the PC's serial port. It provides connection to the TV's I^2C bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.

The TRACE software that is supplied with the interface allows you to:
- Read, restore and compare NVM contents via the I^2C bus
- Acknowledge check of all I^2C devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:
- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.
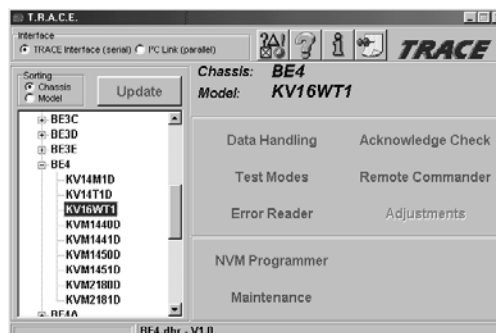
Note: For workshops already using the existing I^2C Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.

Partnumbers: TRACE Starter Kit (TRACE interface + software):   9-948-320-70
TRACE Software (for users of the I^2C Link interface):   9-948-340-80
TRACE IR Add-on (IR interface + Remote Commander software): 9-948-320-80

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT*.

* WindowsNT only supported with TRACE interface